# LLNL Livermore Site First Quarter 2014 Self-Monitoring Report

This quarterly report presents the first quarter 2014 self-monitoring data for the ground water and soil vapor treatment facilities at the Lawrence Livermore National Laboratory (LLNL) Livermore Site. The volumes of ground water and soil vapor treated, and volatile organic compound (VOC) mass removed during the first quarter of 2014 are presented in Tables 1 and 2, respectively. An historical summary of VOC volume and mass removed are presented in Tables 3 and 4, respectively.

Attachment A presents results of ground water treatment facility and extraction well (ground water and soil vapor) VOC, chromium, bioassay, turbidity, and chloride analyses (Tables A-1 through A-5). Metals and radiological analyses are presented in Tables A-6 and A-7, respectively. During the first quarter of 2014, all effluent sample analytical results were within acceptable discharge limits.

Self-monitoring reports for all treatment facilities are presented in Attachment B. Monthly volumes of ground water extracted are shown in Attachment B; however, instantaneous flow rates are not shown for wells that are now only used for sampling and are not continuously pumped. The monthly volume shown for these wells is the quantity of water evacuated for sampling purposes.

A map showing Livermore Site treatment areas and treatment facility locations, and ground water elevation contour maps showing hydraulic capture zones for hydrostratigraphic units (HSUs) 1B, 2, 3A, 3B, 4, and 5, are presented in Attachment C. The contour maps for the individual HSUs are based on data collected during the first quarter of 2014.

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**Table 1. Volumes of ground water and soil vapor extracted and treated at the Livermore Site, January through March 2014.**

| Treatment Area[a] | Month | Volume of ground water extracted (Kgal)[b] | Volume of vapor extracted (Kcf)[b] |
|---|---|---|---|
| TFA | January | 9,992 | - |
| | February | 8,918 | - |
| | March | 9,513 | - |
| TFB | January | 2,582 | - |
| | February | 2,579 | - |
| | March | 2,076 | - |
| TFC | January | 3,396 | - |
| | February | 2,803 | - |
| | March | 2,802 | - |
| TFD | January | 6,102 | 1,883 |
| | February | 5,507 | 1,646 |
| | March | 6,120 | 1,805 |
| TFE | January | 1,628 | 2,062 |
| | February | 1,557 | 2,243 |
| | March | 2,316 | 2,327 |
| TFG | January | 486 | - |
| | February | 214 | - |
| | March | 269 | - |
| TFH | January | 659 | 1,499 |
| | February | 593 | 1,333 |
| | March | 690 | 1,791 |
| TOTAL[c] | | 70,802 | 16,589 |

[a] Totals include ground water and soil vapor extracted from the following facilities:
TFA area: TFA, TFA-E
TFB area: TFB
TFC area: TFC, TFC-E, TFC-SE
TFD area: TFD, TFD-E, TFD-HPD, TFD-S, TFD-SE, TFD-SS, TFD-W, VTFD-ETCS
TFE area: TFE-E, TFE-HS, TFE-NW, TFE-SE, TFE-SW, TFE-W, VTFE-ELM, VTFE-HS
TFG area: TFG-1, TFG-N
TFH area: TF406, TF406-NW, TF518-N, TF518-PZ, TF5475-1, TF5475-2, TF5475-3, VTF406-HS, VTF511, VTF518-PZ, VTF5475
TFF started operation in February 1993 for fuel hydrocarbon remediation. In August 1995, the regulatory agencies agreed that the vadose zone remediation was complete, and in October 1996 a No Further Action status was granted for the ground water.

[b] Totals are derived from individual extraction wells shown in Attachment B

[c] Rounded number

Kcf = thousands of cubic feet

Kgal = thousands of gallons

**Table 2. VOC mass removed at the Livermore Site, January through March 2014.**

| Treatment Area[a] | VOC mass removed from ground water (kg) | VOC mass removed from soil vapor (kg) | Total VOC mass removed (kg) [b] |
|---|---|---|---|
| TFA | 1.0 | - | 1.0 |
| TFB | 0.5 | - | 0.5 |
| TFC | 0.9 | - | 0.9 |
| TFD | 5.2 | 0.8 | 6.0 |
| TFE | 1.5 | 0.9 | 2.4 |
| TFG | 0.09 | - | 0.1 |
| TFH | 0.3 | 4.1 | 4.4 |
| TOTAL[b] | 9.5 | 5.8 | 15.3 |

**Table 3. Historical summary of volumes of water and soil vapor removed at the Livermore Site through March 2014.**

| Treatment Area[a] | Volume of ground water extracted (Mgal) | Volume of vapor extracted (Mcf) |
|---|---|---|
| TFA | 2,101 | - |
| TFB | 504 | - |
| TFC | 575 | - |
| TFD | 1,167 | 130 |
| TFE | 415 | 203 |
| TFG | 93 | - |
| TFH | 181 | 282 |
| TOTAL[b] | 5,036 | 615 |

**Table 4. Historical summary of VOC mass removed from water and soil vapor at the Livermore Site through March 2014.**

| Treatment Area[a] | VOC mass removed from ground water (kg) | VOC mass removed from soil vapor (kg) | Total VOC mass removed (kg) [b] |
|---|---|---|---|
| TFA | 216 | - | 216 |
| TFB | 84 | - | 84 |
| TFC | 114 | - | 114 |
| TFD | 892 | 99 | 991 |
| TFE | 233 | 157 | 390 |
| TFG | 12 | - | 12 |
| TFH | 42 | 1,281 | 1,323 |
| TOTAL[b] | 1,593 | 1,537 | 3,130 |

[a] Refer to Table 1 footnote for facilities in each treatment facility area.
[b] Rounded number.

Abbreviations for Tables 2, 3 and 4:
kg = Kilograms.
Mcf = millions of cubic feet.
Mgal = millions of gallons.
VOC = Volatile organic compound.

**Table 2. VOC mass removed at the Livermore Site, January through March 2014.**

| Treatment Area[a] | VOC mass removed from ground water (kg) | VOC mass removed from soil vapor (kg) | Total VOC mass removed (kg) [b] |
|---|---|---|---|
| TFA | 1.0 | - | 1.0 |
| TFB | 0.5 | - | 0.5 |
| TFC | 0.9 | - | 0.9 |
| TFD | 5.2 | 0.8 | 6.0 |
| TFE | 1.5 | 0.9 | 2.4 |
| TFG | 0.09 | - | 0.1 |
| TFH | 0.3 | 4.1 | 4.4 |
| TOTAL[b] | 9.5 | 5.8 | 15.3 |

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| TFD | 1,167 | 130 |
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|---|---|---|---|
| TFA | 216 | - | 216 |
| TFB | 84 | - | 84 |
| TFC | 114 | - | 114 |
| TFD | 892 | 99 | 991 |
| TFE | 233 | 157 | 390 |
| TFG | 12 | - | 12 |
| TFH | 42 | 1,281 | 1,323 |
| TOTAL[b] | 1,593 | 1,537 | 3,130 |

[a] Refer to Table 1 footnote for facilities in each treatment facility area.
[b] Rounded number.

Abbreviations for Tables 2, 3 and 4:
kg = Kilograms.
Mcf = millions of cubic feet.
Mgal = millions of gallons.
VOC = Volatile organic compound.

# Attachment A

# VOC, Chromium, Bioassay, Turbidity, Chloride, Metals, and Radiological Analyses

**Table A-1. VOC analyses of influent and effluent samples by treatment facility.**

| Sample Station | Date Sampled | Analytic Method | CTET <- | CFORM - | 1,1-DCA - | 1,2-DCA - | 1,1-DCE ug/L (ppb) | 1,2-DCE - | Freon 113 - | PCE - | 1,1,1-TCA - | TCE - | Freon 11 -> |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TFA** | | | | | | | | | | | | | |
| TFA-I001 | 02-JAN-14 | E601 | <0.5 | **0.86** | **0.71** | <0.5 | **1.1** | <1 | <0.5 | **5.9** | <0.5 | **0.84** | <0.5 |
| TFA-I001 | 03-FEB-14 | E601 | <0.5 | **0.83** | **0.67** | <0.5 | **1** | <1 | <0.5 | **5.8** | <0.5 | **0.61** | <0.5 |
| TFA-I001 | 04-MAR-14 | E601 | <0.5 | **0.84** | **0.62** | <0.5 | **1** | <1 | <0.5 | **6** | <0.5 | **0.59** | <0.5 |
| TFA-E001 | 02-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| TFA-E001 | 03-FEB-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| TFA-E001 | 04-MAR-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| **TFA-E**[a] | --- | --- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **TFB** | | | | | | | | | | | | | |
| TFB-I002 | 08-JAN-14 | E601 | <0.5 | **2.4** | <0.5 | <0.5 | **1.3** | <1 | **2.7** | **1** | <0.5 | **11** | <0.5 |
| TFB-I002 | 03-FEB-14 | E601 | **0.53** | **2.1** | <0.5 | <0.5 | **1.2** | <1 | **2.5** | **1** | <0.5 | **10** | <0.5 |
| TFB-I002 | 03-MAR-14 | E601 | **0.5** | **1.9** | <0.5 | <0.5 | **1.1** | <1 | **2.3** | **0.99** | <0.5 | **9.2** | <0.5 |
| TFB-E002 | 08-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| TFB-E002 | 03-FEB-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| TFB-E002 | 03-MAR-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| **TFC** | | | | | | | | | | | | | |
| TFC-I003 | 09-JAN-14 | E601 | <0.5 | **1.1** | <0.5 | <0.5 | **0.68** | <1 | **8.5** | **3.4** | <0.5 | **10** | <0.5 |
| TFC-I003 | 03-FEB-14 | E601 | <0.5 | **0.92** | <0.5 | <0.5 | **0.66** | <1 | **7.9** | **3.5** | <0.5 | **10** | <0.5 |
| TFC-I003 | 03-MAR-14 | E601 | <0.5 | **0.98** | <0.5 | <0.5 | **0.72** | <1 | **8.8** | **3.7** | <0.5 | **11** | <0.5 |
| TFC-E003 | 09-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| TFC-E003 | 03-FEB-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| TFC-E003 | 03-MAR-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| **TFC-E** | | | | | | | | | | | | | |
| MTU1-I | 02-JAN-14 | E601 | <0.5 | **13** | <0.5 | <0.5 | **0.77** | <1 | **8.7** | <0.5 | <0.5 | **7.5** | **3.8** |
| MTU1-I | 05-FEB-14 | E601 | <0.5 | **3.4** | <0.5 | <0.5 | <0.5 | <1 | **14** | **2.4** | <0.5 | **9.9** | **2.6** |
| MTU1-I | 05-MAR-14 | E601 | <0.5 | **12** | <0.5 | <0.5 | **0.68** | <1 | **7.3** | <0.5 | <0.5 | **7.5** | **3.2** |
| MTU1-E | 02-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| MTU1-E | 05-FEB-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| MTU1-E | 05-MAR-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |

**Table A-1. VOC analyses of influent and effluent samples by treatment facility.**

| Sample Station | Date Sampled | Analytic Method | CTET <- | CFORM - | 1,1-DCA - | 1,2-DCA - | 1,1-DCE ug/L (ppb) | 1,2-DCE - | Freon 113 - | PCE - | 1,1,1-TCA - | TCE - | Freon 11 -> |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TFC-SE** | | | | | | | | | | | | | |
| PTU1-I | 06-JAN-14 | E601 | <0.5 | **7.7** | <0.5 | <0.5 | **1.5** | <1 | **14** | **0.69** | <0.5 | **14** | **1** |
| PTU1-I | 03-FEB-14 | E601 | <0.5 | **7.3** | <0.5 | <0.5 | **1.4** | <1 | **13** | **0.71** | <0.5 | **13** | **1.1** |
| PTU1-I | 03-MAR-14 | E601 | <0.5 | **6.8** | <0.5 | <0.5 | **1.3** | <1 | **13** | **0.67** | <0.5 | **13** | **1** |
| PTU1-E | 06-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| PTU1-E | 03-FEB-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| PTU1-E | 03-MAR-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| **TFD** | | | | | | | | | | | | | |
| TFD-I004 | 02-JAN-14 | E601 | **2** | **3.2** | <0.5 | <0.5 | **1.1** | <1 | **0.66** | **1.9** | <0.5 | **52** | **13** |
| TFD-I004 | 06-FEB-14 | E601 | **1.2** | **2.8** | <0.5 | <0.5 | **0.69** | <1 | <0.5 | **1.2** | <0.5 | **28** | **17** |
| TFD-I004 | 04-MAR-14 | E601 | **2.2** | **2.2** | <0.5 | <0.5 | **1.2** | <1 | **0.7** | **2.3** | <0.5 | **57** | **16** |
| TFD-E004 | 02-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| TFD-E004 | 06-FEB-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| TFD-E004 | 04-MAR-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| **TFD-E** | | | | | | | | | | | | | |
| PTU8-I | 02-JAN-14 | E601 | **2.9** | **1.2** | <0.5 | **0.55** | **3** | <1 | <0.5 | **2.7** | <0.5 | **66** | **0.77** |
| PTU8-I | 05-FEB-14 | E601 | **3.7** | **1.2** | <0.5 | **0.67** | **3.9** | <1 | <0.5 | **3.5** | <0.5 | **81** | **0.87** |
| PTU8-I | 05-MAR-14 | E601 | **3.4** | **1.1** | <0.5 | **0.59** | **3.2** | <1 | <0.5 | **3.5** | <0.5 | **73** | **0.78** |
| PTU8-E | 02-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| PTU8-E | 05-FEB-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| PTU8-E | 05-MAR-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| **TFD-HPD** | | | | | | | | | | | | | |
| PTU10-I | 07-JAN-14 | E601 | **1.4** | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | **34** | <0.5 |
| PTU10-I | 11-FEB-14 | E601 | **1.3** | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | **31** | <0.5 |
| PTU10-I | 12-MAR-14 | E601 | **1.4** | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | **31** | <0.5 |
| PTU10-E | 07-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| PTU10-E | 11-FEB-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| PTU10-E | 12-MAR-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| **TFD-S** | | | | | | | | | | | | | |
| PTU2-I | 02-JAN-14 | E601 | **0.74** | **1.6** | <0.5 | <0.5 | **4.5** | <1 | **1.1** | **6.4** | <0.5 | **54** | <0.5 |
| PTU2-I | 11-FEB-14 | E601 | **0.81** | **1.4** | <0.5 | <0.5 | **4** | <1 | **1** | **6.3** | <0.5 | **52** | <0.5 |
| PTU2-I | 05-MAR-14 | E601 | **0.82** | **1.3** | <0.5 | <0.5 | **3.8** | <1 | **0.99** | **6.5** | <0.5 | **51** | <0.5 |

**Table A-1. VOC analyses of influent and effluent samples by treatment facility.**

| Sample Station | Date Sampled | Analytic Method | CTET <- | CFORM - | 1,1-DCA - | 1,2-DCA - | 1,1-DCE ug/L (ppb) | 1,2-DCE - | Freon 113 - | PCE - | 1,1,1-TCA - | TCE - | Freon 11 -> |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TFD-S (cont.)** | | | | | | | | | | | | | |
| PTU2-E | 02-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| PTU2-E | 11-FEB-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| PTU2-E | 05-MAR-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| **TFD-SE** | | | | | | | | | | | | | |
| PTU11-I | 02-JAN-14 | E601 | **0.73** | **5.2** | **0.71** | **1.5** | **10** | <1 | **1.6** | **25** | <0.5 | **99** | <0.5 |
| PTU11-I | 05-FEB-14 | E601 | **0.72** | **4.8** | **0.63** | **1.4** | **8.9** | <1 | **1.4** | **27** | <0.5 | **96** | <0.5 |
| PTU11-I | 05-MAR-14 | E601 | **0.6** | **4** | **0.57** | **1.2** | **8** | <1 | **1.1** | **25** | <0.5 | **93** | <0.5 |
| PTU11-E | 02-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| PTU11-E | 05-FEB-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| PTU11-E | 05-MAR-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| **TFD-SS** | | | | | | | | | | | | | |
| PTU12-I | 02-JAN-14 | E601 | **1.8** | **2.5** | **0.62** | **2.1** | **11** | <1 | **0.59** | **20** | <0.5 | **110** | **4** |
| PTU12-I | 12-FEB-14 | E601 | **1.6** | **2.3** | **0.64** | **2.1** | **11** | <1 | **0.55** | **24** | <0.5 | **120** | **3.6** |
| PTU12-I | 05-MAR-14 | E601 | **1.8** | **2** | **0.53** | **1.9** | **9.6** | <1 | **0.51** | **21** | <0.5 | **110** | **3.5** |
| PTU12-E | 02-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| PTU12-E | 12-FEB-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| PTU12-E | 05-MAR-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| **TFD-W** | | | | | | | | | | | | | |
| PTU6-I | 15-JAN-14 | E601 | <0.5 | **5.4** | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | **4.2** | **34** |
| PTU6-I | 10-FEB-14 | E601 | <0.5 | **4.8** | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | **4** | **34** |
| PTU6-I | 13-MAR-14 | E601 | <0.5 | **5.2** | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | **3.8** | **34** |
| PTU6-E | 15-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| PTU6-E | 10-FEB-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| PTU6-E | 13-MAR-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| **TFE-E** | | | | | | | | | | | | | |
| PTU3-I | 02-JAN-14 | E601 | <0.5 | **2.4** | <0.5 | <0.5 | **6.1** | <1 | **5.7** | **5.7** | <0.5 | **47** | <0.5 |
| PTU3-I | 03-FEB-14 | E601 | <0.5 | **2.1** | <0.5 | <0.5 | **5.7** | <1 | **5.4** | **6** | <0.5 | **43** | <0.5 |
| PTU3-I | 03-MAR-14 | E601 | <0.5 | **2** | <0.5 | <0.5 | **5.4** | <1 | **5.2** | **5.9** | <0.5 | **43** | <0.5 |
| PTU3-E | 02-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| PTU3-E | 03-FEB-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| PTU3-E | 03-MAR-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |

**Table A-1. VOC analyses of influent and effluent samples by treatment facility.**

| Sample Station | Date Sampled | Analytic Method | CTET <- | CFORM - | 1,1-DCA - | 1,2-DCA - | 1,1-DCE ug/L (ppb) | 1,2-DCE - | Freon 113 - | PCE - | 1,1,1-TCA - | TCE - | Freon 11 -> |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TFE-HS** | | | | | | | | | | | | | |
| W-2105 | 07-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | **0.56** | **3.3** | <0.5 | **52** | <0.5 |
| GTU07-I | 07-JAN-14 | E601 | <0.5 | **0.79** | <0.5 | <0.5 | **1.8** | **3.7** | **3** | **13** | <0.5 | **200** | <0.5 |
| GTU07-I | 04-FEB-14 | E601 | <0.5 | **0.64** | <0.5 | <0.5 | **1.4** | **2.6** | **3.1** | **13** | <0.5 | **180** | <0.5 |
| GTU07-I | 04-MAR-14 | E601 | <0.5 | **0.6** | <0.5 | <0.5 | **1.4** | **2.6** | **2.9** | **12** | <0.5 | **160** | <0.5 |
| GTU07-E | 07-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| GTU07-E | 04-FEB-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| GTU07-E | 04-MAR-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| **TFE-NW** | | | | | | | | | | | | | |
| PTU9-I | 07-JAN-14 | E601 | <0.5 | **1.3** | <0.5 | <0.5 | <0.5 | <1 | **1.1** | <0.5 | <0.5 | **11** | <0.5 |
| PTU9-I | 11-FEB-14 | E601 | <0.5 | **1.1** | <0.5 | <0.5 | <0.5 | <1 | **0.96** | <0.5 | <0.5 | **11** | <0.5 |
| PTU9-I | 05-MAR-14 | E601 | <0.5 | **1** | <0.5 | <0.5 | <0.5 | <1 | **0.97** | <0.5 | <0.5 | **11** | <0.5 |
| PTU9-E | 07-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| PTU9-E | 11-FEB-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| PTU9-E | 05-MAR-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| **TFE-SE** | | | | | | | | | | | | | |
| W-359 | 02-JAN-14 | E601 | **2.6** | **1.1** | <0.5 | <0.5 | **12** | <1 | **5** | **6.4** | <0.5 | **160** | <0.5 |
| MTU04-I | 03-FEB-14 | E601 | **2.5** | **0.98** | <0.5 | <0.5 | **10** | <1 | **4.6** | **6.2** | <0.5 | **170** | **0.5** |
| MTU04-I | 03-MAR-14 | E601 | **2.6** | **1** | <0.5 | <0.5 | **11** | <1 | **5.1** | **6.6** | <0.5 | **160** | **0.51** |
| MTU04-E | 02-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| MTU04-E | 03-FEB-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| MTU04-E | 03-MAR-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| **TFE-SW** | | | | | | | | | | | | | |
| MTU03-I | 14-JAN-14 | E601 | **1.3** | **1.2** | <0.5 | <0.5 | **0.66** | <1 | **0.75** | **1.4** | <0.5 | **31** | <0.5 |
| MTU03-I | 10-FEB-14 | E601 | **1.4** | **1.4** | <0.5 | <0.5 | **0.65** | <1 | **0.66** | **1.4** | <0.5 | **33** | <0.5 |
| MTU03-I | 13-MAR-14 | E601 | **1.8** | **1.7** | <0.5 | <0.5 | **0.87** | <1 | **0.72** | **1.6** | <0.5 | **41** | <0.5 |
| MTU03-E | 14-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| MTU03-E | 10-FEB-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| MTU03-E | 13-MAR-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| **TFE-W**[b] | | | | | | | | | | | | | |
| MTU05-I | 29-JAN-14 | E601 | <0.5 | **1.2** | <0.5 | <0.5 | **1.5** | **1** | **15** | **6.9** | <0.5 | **25** | **0.59** |
| MTU05-I | 11-MAR-14 | E601 | <0.5 | **1** | <0.5 | <0.5 | **1.7** | <1 | **11** | **7.6** | <0.5 | **28** | <0.5 |

**Table A-1. VOC analyses of influent and effluent samples by treatment facility.**

| Sample Station | Date Sampled | Analytic Method | CTET <- | CFORM - | 1,1-DCA - | 1,2-DCA - | 1,1-DCE ug/L (ppb) | 1,2-DCE - | Freon 113 - | PCE - | 1,1,1-TCA - | TCE - | Freon 11 -> |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TFE-W (cont.)** | | | | | | | | | | | | | |
| MTU05-E | 29-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| MTU05-E | 11-MAR-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| **TFG-1[c]** | | | | | | | | | | | | | |
| W-1111 | 08-JAN-14 | E601 | **2.9** | **10** | <0.5 | <0.5 | **0.85** | <1 | <0.5 | **0.94** | <0.5 | **3.9** | <0.5 |
| GTU01-I | 26-MAR-14 | E601 | **5.3** | **8** | <0.5 | <0.5 | **0.91** | <1 | **0.54** | **1** | <0.5 | **4** | <0.5 |
| GTU01-E | 08-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| GTU01-E | 26-MAR-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| **TFG-N** | | | | | | | | | | | | | |
| MTU02-I | 06-JAN-14 | E601 | <0.5 | **1.5** | <0.5 | <0.5 | **1.3** | <1 | **1.2** | **17** | <0.5 | **5** | <0.5 |
| MTU02-I | 10-FEB-14 | E601 | <0.5 | **1.2** | <0.5 | <0.5 | **1.2** | <1 | **1.1** | **17** | <0.5 | **4.6** | <0.5 |
| MTU02-I | 06-MAR-14 | E601 | <0.5 | **1.3** | <0.5 | <0.5 | **1.2** | <1 | **1.1** | **17** | <0.5 | **4.6** | <0.5 |
| MTU02-E | 06-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| MTU02-E | 10-FEB-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| MTU02-E | 06-MAR-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| **TF406** | | | | | | | | | | | | | |
| PTU5-I | 14-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | **4** | <0.5 |
| PTU5-I | 11-FEB-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | **3.8** | <0.5 |
| PTU5-I | 12-MAR-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | **3.4** | <0.5 |
| PTU5-E | 14-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| PTU5-E | 11-FEB-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| PTU5-E | 12-MAR-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| **TF406-NW** | | | | | | | | | | | | | |
| W-1801 | 07-JAN-14 | E601 | <0.5 | **1.3** | <0.5 | <0.5 | <0.5 | <1 | **3.1** | **0.71** | <0.5 | **21** | <0.5 |
| GTU03-I | 11-FEB-14 | E601 | <0.5 | **1** | <0.5 | <0.5 | <0.5 | <1 | **2.7** | **0.69** | <0.5 | **17** | <0.5 |
| GTU03-I | 06-MAR-14 | E601 | <0.5 | **1.2** | <0.5 | <0.5 | <0.5 | <1 | **2.7** | **0.72** | <0.5 | **18** | <0.5 |
| GTU03-E | 07-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| GTU03-E | 11-FEB-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| GTU03-E | 06-MAR-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |

**Table A-1. VOC analyses of influent and effluent samples by treatment facility.**

| Sample Station | Date Sampled | Analytic Method | CTET <- | CFORM - | 1,1-DCA - | 1,2-DCA - | 1,1-DCE ug/L (ppb) | 1,2-DCE - | Freon 113 - | PCE - | 1,1,1-TCA - | TCE - | Freon 11 -> |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TF518-N**[d] | | | | | | | | | | | | | |
| W-1410 | 08-FEB-14 | E601 | **1.9** | **2** | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | **12** | <0.5 |
| **TF5475-1**[e] | | | | | | | | | | | | | |
| W-1302-2 | 25-FEB-14 | E601 | **1.9** | **33** | **1.2** | **4** | **17** | <1 | **6.2** | **45** | <0.5 | **320** | <0.5 |
| **TF5475-2** | | | | | | | | | | | | | |
| GTU09-I | 02-JAN-14 | E601 | **1.5** | **17** | <0.5 | **2.4** | **14** | <1 | **4.6** | **28** | <0.5 | **250** | <0.5 |
| GTU09-I | 05-FEB-14 | E601 | **1.7** | **17** | <0.5 | **2.3** | **14** | <1 | **4.7** | **32** | <0.5 | **250** | <0.5 |
| GTU09-I | 05-MAR-14 | E601 | **1.7** | **15** | <0.5 | **2.2** | **13** | <1 | **4.8** | **32** | <0.5 | **250** | <0.5 |
| GTU09-E | 02-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| GTU09-E | 05-FEB-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| GTU09-E | 05-MAR-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| **TF5475-3**[f] | --- | --- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

Notes on following page.

**Table A-1. VOC analyses of influent and effluent samples by treatment facility.**

[a] TFA-E did not operate during the first quarter reporting period due to lack of ground water in extraction well W-254, the sole source of water for this facility.

[b] TFE-W samples were not collected during the month of February due to the system only running intermittently because of operational testing.

[c] TFG-1 did not operate during the month of February due to system modifications as part of the Remediation Evaluation (REVAL) implementation process.

[d] TF518-N did not operate during this reporting period due to mixed waste disposition issues.

[e] TF5475-1 did not operate during this reporting period due to mixed waste disposition issues.

[f] TF5475-3 did not operate during this reporting period due to mixed waste disposition issues.

Notes:

CTET = Carbon tetrachloride

CFORM = Chloroform

1,1-DCA = 1,1-Dichloroethane

1,2-DCA = 1,2-Dichloroethane

1,1-DCE = 1,1-Dichloroethylene

1,2-DCE = 1,2-Dichloroethylene

Freon 113 = Trichlorotrifluoroethane

PCE = Tetrachloroethylene

1,1,1-TCA = 1,1,1-Trichloroethane

TCE = Trichloroethene

Freon 11 = Trichlorofluoromethane

VOC = volatile organic compound

Numbers in **BOLD** print indicate positive values above the detection limit.

**Table A-2. VOC analyses of samples from treatment facility extraction wells.**

| Extraction Well | Date Sampled | Analytic Method | CTET <- | CFORM - | 1,1-DCA - | 1,2-DCA - | 1,1-DCE ug/L (ppb) | 1,2-DCE - | Freon 113 - | PCE - | 1,1,1-TCA - | TCE - | Freon 11 -> |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TFA** | | | | | | | | | | | | | |
| W-109 | 14-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | **0.53** | **0.95** | <0.5 | <0.5 | <0.5 |
| W-262 | 14-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| W-404 | 14-JAN-14 | E601 | <0.5 | <0.5 | **0.77** | <0.5 | **0.99** | <1 | <0.5 | **4.5** | <0.5 | <0.5 | <0.5 |
| W-408 | 14-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | **0.53** | <0.5 | <0.5 | <0.5 |
| W-415 | 14-JAN-14 | E601 | <0.5 | **1.4** | **0.62** | <0.5 | **1.3** | <1 | <0.5 | **10** | <0.5 | **0.96** | <0.5 |
| W-457 | 14-JAN-14 | E601 | <0.5 | <0.5 | **0.64** | <0.5 | **0.7** | <1 | <0.5 | **5.4** | <0.5 | <0.5 | <0.5 |
| W-518 | 14-JAN-14 | E601 | <0.5 | <0.5 | **7.3** | <0.5 | **3.4** | <1 | <0.5 | **4.2** | <0.5 | <0.5 | <0.5 |
| W-522 | 14-JAN-14 | E601 | <0.5 | <0.5 | **1.4** | <0.5 | **0.92** | <1 | <0.5 | **2.8** | <0.5 | <0.5 | <0.5 |
| W-605 | 14-JAN-14 | E601 | <0.5 | <0.5 | **0.7** | <0.5 | **0.87** | <1 | <0.5 | **12** | <0.5 | **0.63** | <0.5 |
| W-614 | 14-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | **4.7** | <0.5 | <0.5 | <0.5 |
| W-712 | 14-JAN-14 | E601 | **2.8** | **3.1** | **1.1** | <0.5 | **3.6** | <1 | <0.5 | **2** | <0.5 | **3.4** | <0.5 |
| W-714 | 14-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | **6.3** | <0.5 | <0.5 | <0.5 |
| W-903 | 14-JAN-14 | E601 | <0.5 | <0.5 | **0.83** | <0.5 | **0.67** | <1 | <0.5 | **4.1** | <0.5 | <0.5 | <0.5 |
| W-904 | 14-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | **0.7** | <1 | <0.5 | **4.7** | <0.5 | <0.5 | <0.5 |
| W-1001 | 14-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 |
| W-1004 | 14-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | **1.8** | <0.5 | <0.5 | <0.5 |
| W-1009 | 14-JAN-14 | E601 | **1** | **4.6** | **0.65** | <0.5 | **2.8** | <1 | <0.5 | **10** | <0.5 | **1.8** | <0.5 |
| **TFA-E**[a] | | | | | | | | | | | | | |
| W-254[b] | 29-APR-13 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | **20** | <0.5 | **0.5** | <0.5 |
| **TFB** | | | | | | | | | | | | | |
| W-357 | 08-JAN-14 | E601 | **1.4** | **3** | <0.5 | <0.5 | **1.6** | <1 | **4.6** | **1.1** | <0.5 | **33** | <0.5 |
| W-610 | 08-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | **0.52** | <0.5 | <0.5 | **0.88** | <0.5 |
| W-620 | 08-JAN-14 | E601 | <0.5 | **0.81** | <0.5 | <0.5 | **0.81** | <1 | **1.2** | **0.95** | <0.5 | **3.3** | <0.5 |
| W-621 | 08-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | **1.2** | <0.5 |
| W-655 | 08-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | **4.9** | <0.5 | <0.5 | **0.73** | <0.5 |
| W-704 | 08-JAN-14 | E601 | **0.54** | **3.9** | <0.5 | <0.5 | **2** | <1 | **5.6** | **2.5** | <0.5 | **17** | <0.5 |
| W-1423 | 08-JAN-14 | E601 | **0.77** | **4.8** | <0.5 | <0.5 | **2.9** | <1 | **2.5** | **1.7** | <0.5 | **8.6** | <0.5 |
| W-2501 | 08-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | **1.2** | <0.5 | <0.5 | **5** | <0.5 |
| W-2502 | 08-JAN-14 | E601 | **0.66** | **3.7** | <0.5 | <0.5 | **2.1** | <1 | **0.52** | <0.5 | <0.5 | **2.5** | <0.5 |
| **TFC** | | | | | | | | | | | | | |
| W-701 | 09-JAN-14 | E601 | <0.5 | **2** | <0.5 | <0.5 | **1.5** | <1 | **22** | **2** | <0.5 | **17** | <0.5 |
| W-1015 | 09-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | **0.58** | <1 | **1.4** | **0.71** | <0.5 | **3.8** | <0.5 |
| W-1102 | 09-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | **2.3** | <0.5 | <0.5 | **1.3** | <0.5 |
| W-1103 | 09-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | **1** | <0.5 |
| W-1104 | 09-JAN-14 | E601 | <0.5 | **0.66** | <0.5 | <0.5 | <0.5 | <1 | **2.5** | **5.1** | <0.5 | **9.8** | <0.5 |
| W-1116 | 09-JAN-14 | E601 | <0.5 | **1** | <0.5 | <0.5 | <0.5 | <1 | **4.7** | **3.3** | <0.5 | **6.6** | <0.5 |

**Table A-2. VOC analyses of samples from treatment facility extraction wells.**

| Extraction Well | Date Sampled | Analytic Method | CTET | CFORM | 1,1-DCA | 1,2-DCA | 1,1-DCE | 1,2-DCE | Freon 113 | PCE | 1,1,1-TCA | TCE | Freon 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | <- | - | - | - | ug/L (ppb) | - | - | - | - | - | -> |
| **TFC-E** | | | | | | | | | | | | | |
| W-368 | 02-JAN-14 | E601 | <0.5 | **4.8** | <0.5 | <0.5 | <0.5 | <1 | **13** | **2.4** | <0.5 | **12** | **2.7** |
| W-413 | 02-JAN-14 | E601 | <0.5 | **15** | <0.5 | <0.5 | **0.91** | <1 | **7.9** | <0.5 | <0.5 | **8** | **3.9** |
| **TFC-SE** | | | | | | | | | | | | | |
| W-1213 | 06-JAN-14 | E601 | <0.5 | **8.3** | <0.5 | <0.5 | **1.5** | <1 | **5.3** | <0.5 | <0.5 | **9.6** | <0.5 |
| W-2201 | 14-JAN-14 | E601 | <0.5 | **7.4** | <0.5 | <0.5 | **1.5** | <1 | **15** | **0.8** | <0.5 | **14** | **1.2** |
| **TFD** | | | | | | | | | | | | | |
| W-351 | 27-JAN-14 | E601 | **24** | **3.8** | <0.5 | **0.92** | **6.5** | <1 | **4.1** | **7** | <0.5 | **480** | **1.2** |
| W-653 | 27-JAN-14 | E601 | **18** | **5.5** | <0.5 | <0.5 | **0.6** | <1 | **2.4** | **0.72** | <0.5 | **580** | <0.5 |
| W-906 | 19-MAR-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | **3.3** | <0.5 |
| W-907-2 | 27-JAN-14 | E601 | <0.5 | **3.4** | <0.5 | <0.5 | **2.4** | <1 | **1.2** | **5.2** | <0.5 | **49** | <0.5 |
| W-2011 | 27-JAN-14 | E601 | **0.76** | **0.73** | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | **18** | <0.5 |
| W-2101 | 27-JAN-14 | E601 | **3.8** | **1.7** | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | **160** | <0.5 |
| W-2102 | 27-JAN-14 | E601 | **12** | **4** | <0.5 | <0.5 | <0.5 | <1 | **1.3** | <0.5 | <0.5 | **390** | **1** |
| W-1206 | 27-JAN-14 | E601 | **0.8** | **4.3** | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | **14** | <0.5 |
| W-1208 | 27-JAN-14 | E601 | **1.9** | **1.7** | <0.5 | <0.5 | **0.81** | <1 | <0.5 | **1.1** | <0.5 | **45** | **24** |
| **TFD-E** | | | | | | | | | | | | | |
| W-2006 | 05-FEB-14 | E601 | **1** | **1.8** | **2.4** | **8** | **83** | **1.2** | <0.5 | **77** | <0.5 | **450** | <0.5 |
| W-1301 | 05-FEB-14 | E601 | **6.6** | **2.3** | **1.6** | **5.5** | **41** | <1 | **0.59** | **32** | <0.5 | **230** | <0.5 |
| W-1303 | 05-FEB-14 | E601 | **3.2** | **2** | **0.53** | **1.8** | **4.2** | <1 | <0.5 | **5.5** | <0.5 | **120** | **5.8** |
| W-1306 | 05-FEB-14 | E601 | **1.6** | **1.3** | <0.5 | <0.5 | <0.5 | <1 | <0.5 | **2.1** | <0.5 | **45** | <0.5 |
| W-1307 | 05-FEB-14 | E601 | **3.2** | **0.75** | <0.5 | <0.5 | <0.5 | <1 | <0.5 | **0.81** | <0.5 | **48** | <0.5 |
| W-1550 | 05-FEB-14 | E601 | **6.1** | **4.4** | <0.5 | <0.5 | **0.59** | <1 | **0.54** | **2.1** | <0.5 | **180** | <0.5 |
| W-2203 | 05-FEB-14 | E601 | **8.9** | **2.3** | <0.5 | <0.5 | **1.6** | <1 | **1.5** | **5.8** | <0.5 | **98** | <0.5 |
| **TFD-HPD** | | | | | | | | | | | | | |
| W-1254 | 14-JAN-14 | E601 | **1.4** | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | **32** | <0.5 |
| W-1650 | 25-FEB-14 | E601 | **2.1** | **1** | <0.5 | <0.5 | <0.5 | **2.6** | **1.2** | <0.5 | <0.5 | **100** | <0.5 |
| W-1653 | 25-FEB-14 | E601 | <0.5 | **1.3** | <0.5 | <0.5 | <0.5 | **31** | <0.5 | <0.5 | <0.5 | **53** | <0.5 |
| W-1655 | 25-FEB-14 | E601 | <0.5 | **1.2** | <0.5 | <0.5 | <0.5 | **11** | <0.5 | **1.6** | <0.5 | **39** | <0.5 |
| W-1657 | 25-FEB-14 | E601 | **9.3** | **4.1** | <0.5 | <0.5 | <0.5 | <1 | **2.6** | <0.5 | <0.5 | **1000** | <0.5 |
| **TFD-S** | | | | | | | | | | | | | |
| W-1503 | 02-JAN-14 | E601 | **1.6** | **1.7** | <0.5 | <0.5 | **1.3** | <1 | <0.5 | **1.7** | <0.5 | **47** | <0.5 |
| W-1504 | 02-JAN-14 | E601 | <0.5 | **1.1** | <0.5 | <0.5 | **8.9** | **1.2** | **2.2** | **12** | <0.5 | **68** | <0.5 |
| W-1510 | 02-JAN-14 | E601 | <0.5 | **1.8** | <0.5 | <0.5 | **3.4** | <1 | **0.53** | **5** | <0.5 | **41** | <0.5 |

**Table A-2. VOC analyses of samples from treatment facility extraction wells.**

| Extraction Well | Date Sampled | Analytic Method | CTET <- | CFORM - | 1,1-DCA - | 1,2-DCA - | 1,1-DCE ug/L (ppb) | 1,2-DCE - | Freon 113 - | PCE - | 1,1,1-TCA - | TCE - | Freon 11 -> |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TFD-SE** | | | | | | | | | | | | | |
| W-314 | 05-FEB-14 | E601 | **0.54** | **4.1** | **0.56** | **0.78** | **4.2** | <1 | **1.6** | **8.7** | <0.5 | **73** | <0.5 |
| W-2005 | 05-FEB-14 | E601 | <0.5 | **0.52** | <0.5 | <0.5 | **4.8** | <1 | <0.5 | **14** | <0.5 | **23** | <0.5 |
| W-1308 | 05-FEB-14 | E601 | <0.5 | **1.3** | **0.72** | **2.4** | **12** | <1 | <0.5 | **64** | <0.5 | **93** | <0.5 |
| W-1403 | 05-FEB-14 | E601 | **2** | **15** | **1.1** | **4.3** | **31** | <1 | **3.3** | **83** | <0.5 | **330** | <0.5 |
| W-1904 | 05-FEB-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | **2.1** | <1 | <0.5 | **18** | <0.5 | **6.7** | <0.5 |
| SIP-ETC-201 | 05-FEB-14 | E601 | <0.5 | **0.58** | **2** | **0.83** | **61** | <1 | <0.5 | **330** | <0.5 | **190** | <0.5 |
| **TFD-SS** | | | | | | | | | | | | | |
| W-1523 | 02-JAN-14 | E601 | **2.7** | **3.4** | <0.5 | **1.6** | **9.8** | <1 | **1** | **15** | <0.5 | **110** | <0.5 |
| W-1601 | 02-JAN-14 | E601 | **2.4** | **3.6** | **1.1** | **5.1** | **17** | <1 | **0.89** | **65** | <0.5 | **190** | <0.5 |
| W-1602 | 02-JAN-14 | E601 | <0.5 | **1** | <0.5 | <0.5 | <0.5 | <1 | <0.5 | **1** | <0.5 | **7.8** | **1.3** |
| W-1603 | 02-JAN-14 | E601 | **0.94** | **1.8** | **0.67** | **2.4** | **8.4** | <1 | <0.5 | **16** | <0.5 | **100** | **5** |
| **TFD-W** | | | | | | | | | | | | | |
| W-1215 | 15-JAN-14 | E601 | <0.5 | **8.9** | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | **4.4** | **17** |
| W-1216 | 15-JAN-14 | E601 | <0.5 | **5** | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | **2.5** | **24** |
| W-1902 | 15-JAN-14 | E601 | <0.5 | **3.4** | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | **4.8** | **49** |
| **TFE-E** | | | | | | | | | | | | | |
| W-566 | 02-JAN-14 | E601 | **0.52** | **2.8** | <0.5 | <0.5 | **4.7** | <1 | **6.3** | **3** | <0.5 | **38** | <0.5 |
| W-1109 | 02-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | **22** | <1 | **4.1** | **38** | <0.5 | **130** | <0.5 |
| W-1903 | 02-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | **15** | <1 | **4** | **13** | <0.5 | **29** | <0.5 |
| W-1909[b] | 14-NOV-11 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | **9.1** | **1.1** | <0.5 | **5.4** | <0.5 | **6.5** | <0.5 |
| W-2305 | 04-MAR-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | **19** | <1 | **7.2** | **25** | <0.5 | **38** | <0.5 |
| **TFE-HS** | | | | | | | | | | | | | |
| W-2105 | 07-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | **0.56** | **3.3** | <0.5 | **52** | <0.5 |
| **TFE-NW** | | | | | | | | | | | | | |
| W-1211 | 07-JAN-14 | E601 | <0.5 | **1.5** | <0.5 | <0.5 | <0.5 | <1 | **1.3** | <0.5 | <0.5 | **8.3** | <0.5 |
| W-1409 | 07-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | **0.59** | <1 | <0.5 | **1.3** | <0.5 | **25** | <0.5 |
| **TFE-SE** | | | | | | | | | | | | | |
| W-359 | 02-JAN-14 | E601 | **2.6** | **1.1** | <0.5 | <0.5 | **12** | <1 | **5** | **6.4** | <0.5 | **160** | <0.5 |
| **TFE-SW** | | | | | | | | | | | | | |
| W-1516 | 14-JAN-14 | E601 | **0.54** | **0.74** | <0.5 | <0.5 | <0.5 | <1 | **0.72** | **0.55** | <0.5 | **9.8** | <0.5 |
| W-1518 | 14-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | **1.5** | **1.1** | **2.6** | **0.87** | <0.5 | **11** | <0.5 |
| W-1520 | 14-JAN-14 | E601 | **8.8** | **5.8** | <0.5 | **3** | **2.1** | **1.7** | <0.5 | **11** | <0.5 | **220** | <0.5 |

**Table A-2. VOC analyses of samples from treatment facility extraction wells.**

| Extraction Well | Date Sampled | Analytic Method | CTET <- | CFORM - | 1,1-DCA - | 1,2-DCA - | 1,1-DCE ug/L (ppb) | 1,2-DCE - | Freon 113 - | PCE - | 1,1,1-TCA - | TCE - | Freon 11 -> |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TFE-SW (cont.)** | | | | | | | | | | | | | |
| W-1522 | 14-JAN-14 | E601 | **11** | **6** | **0.56** | **1.1** | **5.2** | **8.2** | **0.72** | **5.4** | <0.5 | **200** | <0.5 |
| **TFE-W** | | | | | | | | | | | | | |
| W-292 | 11-MAR-14 | E601 | <0.5 | **0.79** | <0.5 | <0.5 | **0.97** | **1.9** | **1.3** | **1.4** | <0.5 | **19** | <0.5 |
| W-305 | 11-MAR-14 | E601 | <0.5 | **1** | <0.5 | <0.5 | **1.7** | <1 | **14** | **9.6** | <0.5 | **29** | **0.57** |
| **TFG-1** | | | | | | | | | | | | | |
| W-1111 | 08-JAN-14 | E601 | **2.9** | **10** | <0.5 | <0.5 | **0.85** | <1 | <0.5 | **0.94** | <0.5 | **3.9** | <0.5 |
| **TFG-N** | | | | | | | | | | | | | |
| W-1806 | 06-JAN-14 | E601 | <0.5 | **0.9** | <0.5 | <0.5 | **0.6** | <1 | <0.5 | **9.5** | <0.5 | **2.7** | <0.5 |
| W-1807 | 06-JAN-14 | E601 | <0.5 | **1.6** | <0.5 | <0.5 | **1.7** | <1 | **1.5** | **19** | <0.5 | **5.5** | <0.5 |
| **TF406** | | | | | | | | | | | | | |
| W-1309 | 14-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | **2.2** | <0.5 |
| W-1310 | 14-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | **4.2** | <0.5 |
| **TF406-NW** | | | | | | | | | | | | | |
| W-1801 | 07-JAN-14 | E601 | <0.5 | **1.3** | <0.5 | <0.5 | <0.5 | <1 | **3.1** | **0.71** | <0.5 | **21** | <0.5 |
| **TF518-N**[a] | | | | | | | | | | | | | |
| W-1410 | 08-FEB-14 | E601 | **1.9** | **2** | <0.5 | <0.5 | <0.5 | <1 | <0.5 | <0.5 | <0.5 | **12** | <0.5 |
| **TF518-PZ** | | | | | | | | | | | | | |
| W-1615 | 28-JAN-14 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | **4.1** | <1 | <0.5 | **47** | <0.5 | **210** | <0.5 |
| W-518-1913[b] | 23-MAY-11 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | **0.76** | <1 | <0.5 | **3.8** | <0.5 | **29** | <0.5 |
| W-518-1914[b] | 17-JAN-13 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | **44** | <0.5 | **3.6** | <0.5 |
| W-518-1915 | 28-JAN-14 | E601 | <0.5 | **0.89** | <0.5 | <0.5 | **5.3** | <1 | <0.5 | **69** | <0.5 | **630** | <0.5 |
| SVB-518-201[b] | 07-FEB-08 | E601 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <1 | <0.5 | **35** | <0.5 | **8.5** | <0.5 |
| SVB-518-204[b] | 07-FEB-08 | E601 | <0.5 | **0.63** | <0.5 | <0.5 | **1.4** | <1 | <0.5 | **43** | <0.5 | **550** | <0.5 |
| **TF5475-1**[a] | | | | | | | | | | | | | |
| W-1302-2 | 25-FEB-14 | E601 | **1.9** | **33** | **1.2** | **4** | **17** | <1 | **6.2** | **45** | <0.5 | **320** | <0.5 |
| **TF5475-2** | | | | | | | | | | | | | |
| W-1108 | 02-JAN-14 | E601 | **1.7** | **18** | **0.51** | **2.6** | **15** | <1 | **4.8** | **30** | <0.5 | **240** | <0.5 |
| W-1415[b] | 15-OCT-12 | E601 | <0.5 | **6.5** | <0.5 | <0.5 | **3** | **7.2** | <0.5 | **5.8** | <0.5 | **47** | <0.5 |

**Table A-2. VOC analyses of samples from treatment facility extraction wells.**

| Extraction Well | Date Sampled | Analytic Method | CTET <- | CFORM - | 1,1-DCA - | 1,2-DCA - | 1,1-DCE ug/L (ppb) | 1,2-DCE - | Freon 113 - | PCE - | 1,1,1-TCA - | TCE - | Freon 11 -> |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TF5475-3**[a] | | | | | | | | | | | | | |
| W-1604[c] | 04-MAR-14 | E601 | **3.4** | **58** | **1.5** | **17** | **25** | **3.5** | **7.7** | **78** | <1 | **780** | <1 |
| W-1605 | 19-FEB-14 | E601 | <0.5 | **7.6** | <0.5 | **1** | <0.5 | <1 | <0.5 | **1.3** | <0.5 | **15** | <0.5 |
| W-1608 | 19-FEB-14 | E601 | <0.5 | **2.7** | <0.5 | **0.68** | <0.5 | <1 | <0.5 | **0.81** | <0.5 | **7.5** | <0.5 |
| W-1609[b] | 12-NOV-13 | E601 | <0.5 | **31** | <0.5 | **1.9** | **3.1** | <1 | <0.5 | **8.3** | <0.5 | **66** | <0.5 |

Notes on following page.

**Table A-2. VOC analyses of samples from treatment facility extraction wells.**

[a] Treatment Facility did not operate during reporting period. Please refer to Table A-1 for details.

[b] Most recent VOC sample results available.

Notes:

CTET = Carbon tetrachloride

CFORM = Chloroform

1,1-DCA = 1,1-Dichloroethane

1,2-DCA = 1,2-Dichloroethane

1,1-DCE = 1,1-Dichloroethylene

1,2-DCE = 1,2-Dichloroethylene

Freon 113 = Trichlorotrifluoroethane

PCE = Tetrachloroethylene

1,1,1-TCA = 1,1,1-Trichloroethane

TCE = Trichloroethene

Freon 11 = Trichlorofluoromethane

VOC = volatile organic compound

Numbers in **BOLD** print indicate positive values above the detection limit.

**Table A-3. VOC analyses of vapor samples from treatment facility extraction wells.**

| Extraction Well | Date Sampled | Analytic Method | CTET <- | CFORM - | 1,1-DCA - | 1,2-DCA - | 1,1-DCE PPM(V/V) | 1,2-DCE - | Freon 113 - | PCE - | 1,1,1-TCA - | TCE - | Freon 11 -> |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **VTFD-ETCS** | | | | | | | | | | | | | |
| W-1904 | 15-JAN-14 | TO15DIT | <0.005 | <0.005 | <0.005 | <0.005 | **0.0065** | <0.005 | <0.005 | **0.16** | <0.005 | **0.055** | <0.005 |
| W-ETC-2003 | 15-JAN-14 | TO15DIT | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | **0.074** | <0.005 | **0.019** | <0.005 |
| W-ETC-2004A | 15-JAN-14 | TO15DIT | <0.005 | **0.0059** | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | **0.23** | <0.005 | **0.06** | <0.005 |
| W-ETC-2004B | 15-JAN-14 | TO15DIT | <0.005 | **0.011** | **0.005** | <0.005 | **0.077** | <0.005 | <0.005 | **0.42** | <0.005 | **1** | <0.005 |
| SIP-ETC-201 | 15-JAN-14 | TO15DIT | <0.005 | <0.005 | <0.005 | <0.005 | **0.011** | <0.005 | <0.005 | **0.17** | <0.005 | **0.18** | <0.005 |
| **VTFE-ELM** | | | | | | | | | | | | | |
| W-1903 | 03-MAR-14 | TO15DIT | <0.005 | <0.005 | **0.0064** | <0.005 | **0.55** | <0.005 | **0.12** | **0.54** | <0.005 | **1.2** | <0.005 |
| W-1909[a] | 06-OCT-11 | TO15DIT | <0.005 | **0.034** | <0.005 | <0.005 | **0.51** | <0.005 | **0.054** | **0.88** | <0.005 | **1.2** | <0.005 |
| W-2305[a] | 06-OCT-11 | TO15DIT | <0.005 | <0.005 | <0.005 | <0.005 | **0.2** | <0.005 | **0.036** | **0.46** | <0.005 | **0.55** | <0.005 |
| W-543-001 | 03-MAR-14 | TO15DIT | <0.005 | <0.005 | <0.005 | <0.005 | **0.0097** | <0.005 | <0.005 | **0.25** | <0.005 | **0.13** | <0.005 |
| W-543-003 | 03-MAR-14 | TO15DIT | <0.005 | **0.024** | <0.005 | <0.005 | **0.063** | <0.005 | **0.012** | **0.16** | <0.005 | **0.35** | <0.005 |
| W-543-1908 | 03-MAR-14 | TO15DIT | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | **0.021** | <0.005 | **0.084** | <0.005 |
| **VTFE-HS** | | | | | | | | | | | | | |
| W-2105 | 15-JAN-14 | TO15DIT | <0.005 | <0.005 | <0.005 | <0.005 | **0.0099** | <0.005 | **0.12** | **0.12** | <0.005 | **1.2** | <0.005 |
| W-ETS-2008A | 15-JAN-14 | TO15DIT | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | **0.0064** | <0.005 | **0.0087** | <0.005 |
| W-ETS-2008B | 19-FEB-14 | TO15DIT | <0.005 | **0.0072** | <0.005 | <0.005 | **0.0079** | <0.005 | **0.013** | **0.34** | <0.005 | **0.52** | <0.005 |
| W-ETS-2009 | 15-JAN-14 | TO15DIT | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | **0.1** | <0.005 | **0.27** | <0.005 |
| W-ETS-2010A | 15-JAN-14 | TO15DIT | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | **0.12** | <0.005 | **0.12** | <0.005 |
| W-ETS-2010B | 15-JAN-14 | TO15DIT | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | **0.012** | <0.005 | **0.017** | <0.005 |
| **VTF406-HS** | | | | | | | | | | | | | |
| W-217 | 16-JAN-14 | TO15DIT | **0.098** | **0.038** | **0.0079** | <0.005 | **0.56** | **0.017** | **0.12** | **0.54** | <0.005 | **1.8** | **0.0069** |
| W-514-2007A | 16-JAN-14 | TO15DIT | **0.045** | <0.005 | <0.005 | <0.005 | **0.026** | <0.005 | **0.076** | **0.063** | <0.005 | **0.29** | **1.8** |
| W-514-2007B | 16-JAN-14 | TO15DIT | **0.047** | **0.024** | <0.005 | <0.005 | **0.26** | <0.005 | **0.061** | **0.21** | <0.005 | **0.82** | **0.031** |
| **VTF511** | | | | | | | | | | | | | |
| W-2204[a] | 04-DEC-13 | TO15DIT | **0.071** | <0.036 | <0.036 | <0.036 | <0.036 | <0.036 | <0.036 | **0.52** | <0.036 | **4.6** | <0.036 |
| W-2205[a] | 04-DEC-13 | TO15DIT | **0.062** | <0.01 | <0.01 | <0.01 | **0.023** | <0.01 | <0.01 | **0.15** | <0.01 | **1.9** | <0.01 |
| W-2206[a] | 04-DEC-13 | TO15DIT | **0.0055** | **0.0063** | <0.005 | **0.017** | <0.005 | <0.005 | <0.005 | **0.13** | <0.005 | **0.93** | <0.005 |
| W-2207A[a] | 04-DEC-13 | TO15DIT | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | **0.01** | <0.005 | **0.28** | <0.005 |
| W-2207B | 25-MAR-14 | TO15DIT | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | **0.0094** | <0.005 | **1** | <0.005 |
| W-2208A[a] | 04-DEC-13 | TO15DIT | <0.036 | <0.036 | <0.036 | <0.036 | <0.036 | <0.036 | <0.036 | <0.036 | <0.036 | **4.7** | **0.041** |
| W-2208B | 25-MAR-14 | TO15DIT | **0.094** | **0.075** | **0.053** | **0.026** | **0.46** | **0.14** | **0.072** | **0.32** | <0.017 | **12** | **0.097** |
| **VTF518-PZ** | | | | | | | | | | | | | |
| W-1615 | 25-FEB-14 | TO15DIT | <0.005 | <0.005 | <0.005 | <0.005 | **0.22** | <0.005 | **0.03** | **2.9** | <0.005 | **4.8** | <0.005 |
| W-518-1913 | 25-FEB-14 | TO15DIT | <0.005 | <0.005 | <0.005 | <0.005 | **0.15** | <0.005 | **0.0065** | **0.23** | <0.005 | **1.6** | <0.005 |

**Table A-3. VOC analyses of vapor samples from treatment facility extraction wells.**

| Extraction Well | Date Sampled | Analytic Method | CTET <- | CFORM - | 1,1-DCA - | 1,2-DCA - | 1,1-DCE PPM(V/V) | 1,2-DCE - | Freon 113 - | PCE - | 1,1,1-TCA - | TCE - | Freon 11 -> |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **VTF518-PZ (cont.)** | | | | | | | | | | | | | |
| W-518-1914 | 25-FEB-14 | TO15DIT | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | **1.4** | <0.005 | **0.11** | <0.005 |
| W-518-1915 | 25-FEB-14 | TO15DIT | <0.01 | <0.01 | <0.01 | <0.01 | **0.033** | <0.01 | <0.01 | **6.2** | <0.01 | **2.3** | <0.01 |
| SVB-518-201 | 25-FEB-14 | TO15DIT | <0.005 | <0.005 | <0.005 | <0.005 | **0.0051** | <0.005 | <0.005 | **0.021** | <0.005 | **0.027** | <0.005 |
| SVB-518-204 | 25-FEB-14 | TO15DIT | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | **0.063** | <0.005 | **0.059** | <0.005 |
| **VTF5475**[b] | | | | | | | | | | | | | |
| W-1605 | 04-MAR-14 | TO15DIT | <0.005 | **0.11** | <0.005 | **0.0069** | **0.057** | <0.005 | **0.0073** | **0.036** | <0.005 | **0.44** | <0.005 |
| W-1608 | 04-MAR-14 | TO15DIT | <0.005 | **0.037** | <0.005 | <0.005 | **0.014** | <0.005 | <0.005 | **0.014** | <0.005 | **0.12** | <0.005 |
| W-2211 | 24-FEB-14 | TO15DIT | **0.013** | **0.46** | **0.017** | **0.029** | **0.36** | <0.005 | **0.064** | **0.038** | <0.005 | **0.93** | <0.005 |
| W-2212 | 24-FEB-14 | TO15DIT | <0.005 | **0.041** | <0.005 | <0.005 | **0.052** | <0.005 | **0.0058** | **0.014** | <0.005 | **0.13** | <0.005 |
| W-ETS-507 | 05-MAR-14 | TO15DIT | <0.005 | **1.1** | <0.005 | **0.014** | <0.005 | <0.005 | <0.005 | **0.18** | <0.005 | **0.83** | <0.005 |
| W-2302 | 05-MAR-14 | TO15DIT | <0.005 | **0.014** | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | **0.008** | <0.005 | **0.05** | <0.005 |
| W-2303 | 05-MAR-14 | TO15DIT | <0.005 | **0.011** | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | **0.026** | <0.005 |
| SVI-ETS-504 | 24-FEB-14 | TO15DIT | <0.005 | **0.0072** | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | **0.016** | <0.005 |

Notes on following page.

**Table A-3. VOC analyses of vapor samples from treatment facility extraction wells.**

[a] Most recent VOC vapor sample results available.

[b] VTF5475 did not operate during reporting period due to mixed waste disposition issues.

Notes:
CTET = Carbon tetrachloride

CFORM = Chloroform

1,1-DCA = 1,1-Dichloroethane

1,2-DCA = 1,2-Dichloroethane

1,1-DCE = 1,1-Dichloroethylene

1,2-DCE = 1,2-Dichloroethylene

Freon 113 = Trichlorotrifluoroethane

PCE = Tetrachloroethylene

1,1,1-TCA = 1,1,1-Trichloroethane

TCE = Trichloroethene

Freon 11 = Trichlorofluoromethane

VOC = volatile organic compound

Numbers in **BOLD** print indicate positive values above the detection limit.

**Table A-4. Chromium analyses of influent, effluent and receiving water samples by treatment facility.**

| Treatment Facility | Sample Station | Date Sampled | Chromium (total)[a] mg/L (ppm) | Hexavalent Chromium mg/L (ppm) |
|---|---|---|---|---|
| **TFA** | TFA-I001 | 02-JAN-14 | 0.013 | NA |
| | TFA-E001 | 02-JAN-14 | 0.011 | 0.013 |
| **TFB** | TFB-I002 | 08-JAN-14 | 0.023 | NA |
| | TFB-E002 | 08-JAN-14 | 0.011 | 0.012 |
| | TFB-E002 | 03-FEB-14 | 0.014 | NA |
| | TFB-E002 | 03-MAR-14 | 0.017 | NA |
| | TFB-R002 | 08-JAN-14 | 0.015 | NA |
| **TFC** | TFC-I003 | 09-JAN-14 | 0.025 | NA |
| | TFC-E003 | 09-JAN-14 | 0.013 | 0.014 |
| | TFC-E003 | 03-FEB-14 | 0.015 | NA |
| | TFC-E003 | 03-MAR-14 | 0.018 | NA |
| | TFC-R003 | 09-JAN-14 | 0.0087 | NA |
| **TFC-E** | MTU1-I | 02-JAN-14 | 0.047 | NA |
| | MTU1-E | 02-JAN-14 | 0.0013 | NA |
| | MTU1-E | 02-JAN-14 | <0.005 | <0.005 |
| | MTU1-E | 05-FEB-14 | 0.004 | NA |
| | MTU1-E | 05-MAR-14 | <0.001 | NA |
| **TFC-SE** | PTU1-I | 06-JAN-14 | 0.037 | NA |
| | PTU1-E | 06-JAN-14 | 0.014 | 0.013 |
| | PTU1-E | 03-FEB-14 | 0.015 | NA |
| | PTU1-E | 03-MAR-14 | 0.019 | NA |
| **TFD** | TFD-I004 | 02-JAN-14 | 0.011 | NA |
| | TFD-E004 | 02-JAN-14 | 0.0095 | 0.011 |
| **TFD-E** | PTU8-I | 02-JAN-14 | 0.0067 | NA |
| | PTU8-E | 02-JAN-14 | 0.0054 | 0.0065 |
| **TFD-HPD** | PTU10-I | 07-JAN-14 | 0.016 | NA |
| | PTU10-E | 07-JAN-14 | 0.01 | 0.015 |
| **TFD-S** | PTU2-I | 02-JAN-14 | 0.012 | NA |
| | PTU2-E | 02-JAN-14 | 0.01 | 0.012 |
| **TFD-SE** | PTU11-I | 02-JAN-14 | 0.01 | NA |
| | PTU11-E | 02-JAN-14 | 0.0085 | 0.01 |
| **TFD-SS** | PTU12-I | 02-JAN-14 | 0.011 | NA |
| | PTU12-E | 02-JAN-14 | 0.0093 | 0.011 |
| **TFD-W** | PTU6-I | 15-JAN-14 | 0.013 | NA |
| | PTU6-E | 15-JAN-14 | 0.01 | 0.01 |
| **TFE-E** | PTU3-I | 02-JAN-14 | 0.011 | NA |
| | PTU3-E | 02-JAN-14 | 0.0085 | 0.0099 |
| **TFE-HS** | GTU07-I | 07-JAN-14 | 0.0065 | NA |
| | GTU07-E | 07-JAN-14 | <0.005 | <0.005 |
| **TFE-NW** | PTU9-I | 07-JAN-14 | 0.014 | NA |
| | PTU9-E | 07-JAN-14 | 0.0092 | 0.0098 |
| **TFE-SE** | W-359 | 02-JAN-14 | 0.0087 | NA |

**Table A-4. Chromium analyses of influent, effluent and receiving water samples by treatment facility.**

| Treatment Facility | Sample Station | Date Sampled | Chromium (total)[a] mg/L (ppm) | Hexavalent Chromium mg/L (ppm) |
|---|---|---|---|---|
| **TFE-SE (cont.)** | | | | |
| | MTU04-E | 02-JAN-14 | 0.0063 | 0.0075 |
| **TFE-SW** | MTU03-I | 14-JAN-14 | 0.015 | NA |
| | MTU03-E | 14-JAN-14 | 0.01 | 0.012 |
| **TFE-W** | MTU05-I | 11-MAR-14 | 0.013 | NA |
| | MTU05-E | 11-MAR-14 | 0.0091 | 0.01 |
| **TFG-1** | W-1111 | 08-JAN-14 | 0.01 | NA |
| | GTU01-E | 08-JAN-14 | <0.005 | <0.005 |
| | TFG-ASW | 08-JAN-14 | 0.016 | NA |
| **TFG-N** | MTU02-I | 06-JAN-14 | 0.0094 | NA |
| | MTU02-E | 06-JAN-14 | 0.0085 | 0.007 |
| **TF406** | PTU5-I | 14-JAN-14 | 0.015 | NA |
| | PTU5-E | 14-JAN-14 | 0.011 | 0.013 |
| **TF406-NW** | W-1801 | 07-JAN-14 | 0.0021 | NA |
| | GTU03-E | 07-JAN-14 | <0.005 | <0.005 |
| **TF5475-2** | GTU09-I | 02-JAN-14 | 0.013 | NA |
| | GTU09-E | 02-JAN-14 | 0.0065 | 0.0076 |

[a]A discharge limit of 0.050 ppm is set for total chromium during the dry season (April 1-November 30), and no limit is set for total chromium for the wet season (December 1-March 31); however, a limit of 0.022 ppm hexavalent chromium applies during the wet season. Discharge limits are defined in the Explanation of Significant Differences for metals discharge limits (April 1997).

Shaded values exceeded the discharge limit. See text for explanation.

**Table A-5. Bioassay, turbidity, and chloride analyses of effluent samples by treatment facility.**

| Treatment Facility | Sample Station | Date Sampled | Aquatic Bioassay[a] Percent Survival | Turbidity Nephelometric Turbidity Units (NTU) | Chloride (mg/L) |
|---|---|---|---|---|---|
| **TFA** | TFA-E001 | 02-JAN-14 | 100 (100) | <0.1 | 83 |
| **TFB** | TFB-E002 | 08-JAN-14 | 100 (100) | <0.1 | 75 |
| **TFC** | TFC-E003 | 09-JAN-14 | 100 (100) | <0.1 | 140 |
| **TFC-E** | MTU1-E | 02-JAN-14 | 100 (100) | <0.1 | 170 |
| **TFC-SE** | PTU1-E | 06-JAN-14 | 100 (100) | 0.13 | 95 |
| **TFD** | TFD-E004 | 02-JAN-14 | 100 (100) | 0.27 | 290 |
| **TFD-E** | PTU8-E | 02-JAN-14 | 100 (100) | <0.1 | 340 |
| **TFD-HPD** | PTU10-E | 07-JAN-14 | 100 (100) | 0.36 | 470 |
| **TFD-S** | PTU2-E | 02-JAN-14 | 100 (100) | <0.1 | 67 |
| **TFD-SE** | PTU11-E | 02-JAN-14 | 100 (100) | 0.13 | 180 |
| **TFD-SS** | PTU12-E | 02-JAN-14 | 100 (100) | <0.1 | 130 |
| **TFD-W** | PTU6-E | 15-JAN-14 | 100 (100) | 1.1 | 180 |
| **TFE-E** | PTU3-E | 02-JAN-14 | 100 (100) | <0.1 | 120 |
| **TFE-HS** | GTU07-E | 07-JAN-14 | 100 (100) | <0.1 | 53 |
| **TFE-NW** | PTU9-E | 07-JAN-14 | 100 (100) | 0.16 | 92 |
| **TFE-SE** | MTU04-E | 02-JAN-14 | 100 (100) | <0.1 | 95 |
| **TFE-SW** | MTU03-E | 14-JAN-14 | 100 (100) | <0.1 | 71 |
| **TFE-W** | MTU05-E | 11-MAR-14 | 100 (100) | <0.1 | 53 |
| **TFG-1** | GTU01-E | 08-JAN-14 | 100 (100) | <0.1 | 32 |
| **TFG-N** | MTU02-E | 06-JAN-14 | 100 (100) | <0.1 | 36 |
| **TF406** | PTU5-E | 14-JAN-14 | 100 (100) | <0.1 | 75 |
| **TF406-NW** | GTU03-E | 07-JAN-14 | 100 (100) | <0.1 | 55 |
| **TF5475-2** | GTU09-E | 02-JAN-14 | 100 (100) | 0.11 | 110 |

[a]Test species was Fathead minnow and the test duration was 96 hours.
Percent survival in the control group samples shown in parentheses.
Note: NA = not applicable

**Table A-6. Metals analyses of effluent samples by treatment facility as compared to the instantaneous Maximum.**

| | | Antimony | Arsenic | Beryllium | Cadmium | Copper | Lead | Mercury | Nickel | Selenium | Silver | Thallium | Zinc |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | <- | - | - | - | - | mg/L (ppm) | - | - | - | - | - | -> |
| **Wet Season[a] (December 1 - March 31)** | | **NA** | **0.01** | **NA** | **0.002** | **0.0236** | **0.006** | **0.002** | **0.3** | **0.01** | **0.1** | **NA** | **0.220** |
| **Sample Station** | **Date Sampled** | | | | | | | | | | | | |
| **TFA** | | | | | | | | | | | | | |
| TFA-E001 | 02-JAN-14 | <0.005 | <0.005 | <0.001 | <0.001 | <0.005 | <0.005 | <0.0002 | <0.005 | <0.005 | <0.005 | <0.001 | <0.01 |
| **TFB** | | | | | | | | | | | | | |
| TFB-E002 | 08-JAN-14 | <0.005 | <0.005 | <0.001 | <0.001 | <0.005 | <0.005 | <0.0002 | **0.0081** | <0.005 | <0.005 | <0.001 | <0.01 |
| **TFC** | | | | | | | | | | | | | |
| TFC-E003 | 09-JAN-14 | <0.005 | <0.005 | <0.001 | <0.001 | <0.005 | <0.005 | <0.0002 | <0.005 | <0.005 | <0.005 | <0.001 | <0.01 |
| **TFC-E** | | | | | | | | | | | | | |
| MTU1-E | 02-JAN-14 | <0.005 | <0.005 | <0.001 | <0.001 | <0.005 | <0.005 | <0.0002 | <0.005 | <0.005 | <0.005 | <0.001 | <0.01 |
| **TFC-SE** | | | | | | | | | | | | | |
| PTU1-E | 06-JAN-14 | <0.005 | <0.005 | <0.001 | <0.001 | <0.005 | <0.005 | <0.0002 | <0.005 | <0.005 | <0.005 | <0.001 | <0.01 |
| **TFD** | | | | | | | | | | | | | |
| TFD-E004 | 02-JAN-14 | <0.005 | <0.005 | <0.001 | <0.001 | <0.005 | <0.005 | <0.0002 | <0.005 | <0.005 | <0.005 | <0.001 | <0.01 |
| **TFD-E** | | | | | | | | | | | | | |
| PTU8-E | 02-JAN-14 | <0.005 | <0.005 | <0.001 | <0.001 | <0.005 | <0.005 | <0.0002 | <0.005 | <0.005 | <0.005 | <0.001 | <0.01 |
| **TFD-HPD** | | | | | | | | | | | | | |
| PTU10-E | 07-JAN-14 | <0.005 | <0.005 | <0.001 | <0.001 | <0.005 | <0.005 | <0.0002 | <0.005 | <0.005 | <0.005 | <0.001 | <0.01 |
| **TFD-S** | | | | | | | | | | | | | |
| PTU2-E | 02-JAN-14 | <0.005 | <0.005 | <0.001 | <0.001 | <0.005 | <0.005 | <0.0002 | <0.005 | <0.005 | <0.005 | <0.001 | <0.01 |
| **TFD-SE** | | | | | | | | | | | | | |
| PTU11-E | 02-JAN-14 | <0.005 | <0.005 | <0.001 | <0.001 | <0.005 | <0.005 | <0.0002 | <0.005 | <0.005 | <0.005 | <0.001 | <0.01 |
| **TFD-SS** | | | | | | | | | | | | | |
| PTU12-E | 02-JAN-14 | <0.005 | <0.005 | <0.001 | <0.001 | <0.005 | <0.005 | <0.0002 | <0.005 | <0.005 | <0.005 | <0.001 | <0.01 |
| **TFD-W** | | | | | | | | | | | | | |
| PTU6-E | 15-JAN-14 | <0.005 | <0.005 | <0.001 | <0.001 | <0.005 | <0.005 | <0.0002 | <0.005 | <0.005 | <0.005 | <0.001 | <0.01 |

**Table A-6. Metals analyses of effluent samples by treatment facility as compared to the instantaneous Maximum.**

| | Antimony | Arsenic | Beryllium | Cadmium | Copper | Lead | Mercury | Nickel | Selenium | Silver | Thallium | Zinc |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | <- | - | - | - | - | mg/L (ppm) | - | - | - | - | - | -> |
| **Wet Season[a] (December 1 - March 31)** | **NA** | **0.01** | **NA** | **0.002** | **0.0236** | **0.006** | **0.002** | **0.3** | **0.01** | **0.1** | **NA** | **0.220** |
| **Sample Station** / **Date Sampled** | | | | | | | | | | | | |
| **TFE-E** PTU3-E | 02-JAN-14 | <0.005 | <0.005 | <0.001 | <0.001 | <0.005 | <0.005 | <0.0002 | <0.005 | <0.005 | <0.005 | <0.001 | <0.01 |
| **TFE-HS** GTU07-E | 07-JAN-14 | <0.005 | <0.005 | <0.001 | <0.001 | <0.005 | <0.005 | <0.0002 | <0.005 | <0.005 | <0.005 | <0.001 | **0.017** |
| **TFE-NW** PTU9-E | 07-JAN-14 | <0.005 | <0.005 | <0.001 | <0.001 | <0.005 | <0.005 | <0.0002 | <0.005 | <0.005 | <0.005 | <0.001 | **0.015** |
| **TFE-SE** MTU04-E | 02-JAN-14 | <0.005 | <0.005 | <0.001 | <0.001 | <0.005 | <0.005 | <0.0002 | <0.005 | <0.005 | <0.005 | <0.001 | <0.01 |
| **TFE-SW** MTU03-E | 14-JAN-14 | <0.005 | <0.005 | <0.001 | <0.001 | <0.005 | <0.005 | <0.0002 | <0.005 | <0.005 | <0.005 | <0.001 | <0.01 |
| **TFE-W** MTU05-E | 11-MAR-14 | <0.005 | <0.005 | <0.001 | <0.001 | <0.005 | <0.005 | <0.0002 | <0.005 | <0.005 | <0.005 | <0.001 | <0.01 |
| **TFG-1** GTU01-E | 08-JAN-14 | <0.005 | <0.005 | <0.001 | <0.001 | <0.005 | <0.005 | <0.0002 | <0.005 | <0.005 | <0.005 | <0.001 | <0.01 |
| **TFG-N** MTU02-E | 06-JAN-14 | <0.005 | <0.005 | <0.001 | <0.001 | <0.005 | <0.005 | <0.0002 | <0.005 | <0.005 | <0.005 | <0.001 | <0.01 |
| **TF406** PTU5-E | 14-JAN-14 | <0.005 | <0.005 | <0.001 | <0.001 | <0.005 | <0.005 | <0.0002 | <0.005 | <0.005 | <0.005 | <0.001 | <0.01 |
| **TF406-NW** GTU03-E | 07-JAN-14 | <0.005 | <0.005 | <0.001 | <0.001 | <0.005 | <0.005 | <0.0002 | <0.005 | <0.005 | <0.005 | <0.001 | <0.01 |
| **TF5475-2** GTU09-E | 02-JAN-14 | NA | <0.005 | <0.001 | <0.001 | <0.005 | <0.005 | <0.0002 | <0.005 | <0.005 | <0.005 | <0.001 | <0.01 |

[a]The Explanation of Significant Differences for metals discharge identifies the Instantaneous Maximum concentrations for the wet season (December 1 - March 30).
NA = not applicable

Numbers in **BOLD** print indicate positive values above the detection limit.

Shaded values exceeded the discharge limit. See text for explanation.

**Table A-7. Radiological analyses of effluent and receiving waters by treatment facility.**

| Treatment Facility | Sample Station | Date Sampled | Gross Alpha <- | Gross Beta pCi/L | Tritium -> |
|---|---|---|---|---|---|
| **TFA** | TFA-E001 | 02-JAN-14 | **3.51** | <3 | **105** |
| **TFB** | TFB-E002 | 08-JAN-14 | **2.36** | <3 | <100 |
| **TFB** | TFB-R002 | 08-JAN-14 | **3.69** | <3 | <100 |
| **TFC** | TFC-E003 | 09-JAN-14 | <2 | <3 | **118** |
| **TFC** | TFC-R003 | 09-JAN-14 | <2 | <3 | **118** |
| **TFC-E** | MTU1-E | 02-JAN-14 | <2 | <3 | **213** |
| **TFC-SE** | PTU1-E | 06-JAN-14 | <2 | **3.54** | **288** |
| **TFD** | TFD-E004 | 02-JAN-14 | **3.34** | **3.3** | <100 |
| **TFD-E** | PTU8-E | 02-JAN-14 | **3.32** | <3 | <100 |
| **TFD-HPD** | PTU10-E | 07-JAN-14 | <2 | **3.46** | <100 |
| **TFD-S** | PTU2-E | 02-JAN-14 | <2 | <3 | **259** |
| **TFD-SE** | PTU11-E | 02-JAN-14 | **3.44** | <3 | **263** |
| **TFD-SS** | PTU12-E | 02-JAN-14 | **3.17** | <3 | **243** |
| **TFD-W** | PTU6-E | 15-JAN-14 | **7.33** | **3.51** | **101** |
| **TFE-E** | PTU3-E | 02-JAN-14 | **2.15** | <3 | <100 |
| **TFE-HS** | GTU07-E | 07-JAN-14 | **8.24** | **3.51** | <100 |
| **TFE-NW** | PTU9-E | 07-JAN-14 | **5.98** | <3 | **174** |
| **TFE-SE** | MTU04-E | 02-JAN-14 | <2 | <3 | <100 |
| **TFE-SW** | MTU03-E | 14-JAN-14 | <2 | <3 | **336** |
| **TFE-W** | MTU05-E | 11-MAR-14 | **5.53** | **4.54** | **161** |
| **TFG-1** | GTU01-E | 08-JAN-14 | **6.58** | <3 | **142** |
| **TFG-1** | TFG-ASW | 08-JAN-14 | **4.44** | **3.3** | <100 |
| **TFG-N** | MTU02-E | 06-JAN-14 | **3.47** | <3 | **198** |
| **TF406** | PTU5-E | 14-JAN-14 | <2 | <3 | <100 |
| **TF406-NW** | GTU03-E | 07-JAN-14 | **3.46** | <3 | <100 |
| **TF5475-2** | GTU09-E | 02-JAN-14 | <2 | <3 | **373** |

Numbers in **BOLD** print indicate positive values above the detection limit.

Explanation of Abbreviations

TFA-I001 is a sampling port located immediately prior to the TFA Treatment System.
TFA-E001 is a sampling port located immediately after the TFA Treatment System, at the beginning of the discharge pipeline.
TFA receiving water is routinely sampled at the TFG-ASW location.
TFB-I002 is a sampling port located immediately prior to the TFB Treatment System.
TFB-E002 is a sampling port located immediately after the TFB Treatment System, at the beginning of the discharge pipeline.
TFB-R002 is a sampling station in the drainage ditch north of TFB, located approximately 75 ft downstream from the discharge point.
TFC-I003 is a sampling port located immediately prior to the TFC Treatment System.
TFC-E003 is a sampling port located immediately after the TFC Treatment System, at the beginning of the discharge pipeline.
TFC-R003 is a sampling station in Arroyo Las Positas, located approximately 75 ft downstream from the TFC discharge point.
TFD-I004 is a sampling port located immediately prior to the TFD Treatment System.
TFD-E004 is a sampling port located immediately after the TFD Treatment System, prior to discharge to the Lake Haussmann or to the underground discharge pipeline leading to Arroyo Las Positas.
TFD-R004 is now combined with and collected at the TFC-R003 location. Results are reported under TFC-R003, as approved by the RWQCB.
CRD1-I is a sampling port located immediately prior to the catalytic column in the Catalytic Reductive Dehalogenation treatment unit 1 (CRD1).
CRD1-E is the effluent from the catalytic column in the Catalytic Reductive Dehalogenation treatment unit 1 (CRD1) and then reinjected at W-1302.
CRD2-I is a sampling port located immediately prior to the catalytic columns in the Catalytic Reductive Dehalogenation treatment unit 2 (CRD2).
CRD2-E is the effluent from the last catalytic column in the Catalytic Reductive Dehalogenation treatment unit 2 (CRD2) and then reinjected at W-1610.
GTU01-I is a sampling port located immediately prior to GTU01, which is currently operating in the TFG-1 area.
GTU01-E is a sampling port located immediately after GTU01, which is currently operating in the TFG-1 area.
GTU01 receiving water is routinely sampled at the TFG-ASW location.
GTU03-I is a sampling port located immediately prior to GTU03, which is currently operating in the TF406 Northwest area.
GTU03-E is a sampling port located immediately after GTU03, which is currently operating in the TF406 Northwest area.
GTU03 receiving water is routinely sampled at the TFC-R003 location.
GTU07-I is a sampling port located immediately prior to GTU07, which is currently operating in the TFE Hotspot area.
GTU07-E is a sampling port located immediately after GTU07, which is currently operating in the TFE Hotspot area.
GTU07 receiving water is routinely sampled at the TFC-R003 location.
GTU09-I is a sampling port located immediately prior to GTU09, which is currently operating in the TF5475 area.
GTU09-E is a sampling port located immediately after GTU09, which is currently operating in the TF5475 area.
GTU09 receiving water is routinely sampled at the TFC-R003 location.
MTU02-I is a sampling port located immediately prior to MTU02, which is currently operating in the TFG North area.
MTU02-E is a sampling port located immediately after MTU02, which is currently operating in the TFG North area.
MTU02 receiving water is routinely sampled at the TFC-R003 location.
MTU03-I is a sampling port located immediately prior to MTU03, which is currently operating in the TFE Southwest area.
MTU03-E is a sampling port located immediately after MTU03, which is currently operating in the TFE Southwest area.
MTU03 receiving water is routinely sampled at the TFC-R003 location.
MTU04-I is a sampling port located immediately prior to MTU04, which is currently operating in the TFE Southeast area.
MTU04-E is a sampling port located immediately after MTU04, which is currently operating in the TFE Southeast area.
MTU04 receiving water is routinely sampled at the TFC-R003 location.
MTU05-I is a sampling port located immediately prior to MTU05, which is currently operating in the TFE West area.
MTU05-E is a sampling port located immediately after MTU05, which is currently operating in the TFE West area.
MTU05 receiving water is routinely sampled at the TFC-R003 location.
MTU1-I is a sampling port located immediately prior to MTU1, which is currently operating in the TFC East area.
MTU1-E is a sampling port located immediately after MTU1, which is currently operating in the TFC East area.

MTU1 receiving water is routinely sampled at the TFC-R003 location.
PTU1-I is a sampling port located immediately prior to PTU-1, which is currently operating in the TFC Southeast area.
PTU1-E is a sampling port located immediately after PTU-1, which is currently operating in the TFC Southeast area.
PTU1 receiving water is routinely sampled at the TFC-R003 location.
PTU2-I is a sampling port located immediately prior to PTU-2, which is currently operating in the TFD South area.
PTU2-E is a sampling port located immediately after PTU-2, which is currently operating in the TFD South area.
PTU2 receiving water is routinely sampled at TFC-R003 during the wet season.
PTU3-I is a sampling port located immediately prior to PTU-3, which is currently operating in the TFE East area.
PTU3-E is a sampling port located immediately after PTU-3, which is currently operating in the TFE East area.
PTU3 receiving water is routinely sampled at the TFC-R003 location.
PTU5-I is a sampling port located immediately prior to PTU-5, which is currently operating in the TF406 extraction location.
PTU5-E is a sampling port located immediately after PTU-5, which is currently operating in the TF406 extraction location.
PTU5 receiving water is routinely sampled at the TFC-R003 location.
PTU6-I is a sampling port located immediately prior to PTU-6, which is currently operating in the TFD West area.
PTU6-E is a sampling port located immediately after PTU-6, which is currently operating in the TFD West area.
PTU6 receiving water is routinely sampled at the TFC-R003 location.
PTU8-I is a sampling port located immediately prior to PTU-8, which is currently operating in the TFD East area.
PTU8-E is a sampling port located immediately after PTU-8, which is currently operating in the TFD East area.
PTU8 receiving water is routinely sampled at the TFC-R003 location.
PTU9-I is a sampling port located immediately prior to PTU-9, which is currently operating in the TFE Northwest area.
PTU9-E is a sampling port located immediately after PTU-9, which is currently operating in the TFE Northwest area.
PTU9 receiving water is routinely sampled at the TFC-R003 location.
PTU10-I is a sampling port located immediately prior to PTU-10, which is currently operating in the TFD Helipad area.
PTU10-E is a sampling port located immediately after PTU-10, which is currently operating in the TFD Helipad area.
PTU10 receiving water is routinely sampled at the TFC-R003 location.
PTU11-I is a sampling port located immediately prior to PTU-11, which is currently operating in the TFD Southeast area.
PTU11-E is a sampling port located immediately after PTU-11, which is currently operating in the TFD Southeast area.
PTU11 receiving water is routinely sampled at the TFC-R003 location.
PTU12-I is a sampling port located immediately prior to PTU-12, which is currently operating in the TFD Southshore area.
PTU12-E is a sampling port located immediately after PTU-12, which is currently operating in the TFD Southshore area.
PTU12 receiving water is routinely sampled at the TFC-R003 location.
STU06-I is a sampling port located immediately prior to STU06, which is operating in the TFA East area.
STU06-E is a sampling port located immediately after STU06, which is operating in the TFA East area.
STU06 receiving water is routinely sampled at the TFG-ASW location.
STU09-I is a sampling port located immediately prior to STU09, which is currently operating in the TF518-North area.
STU09-E is a sampling port located immediately after STU09, which is currently operating in the TF518-North area.
STU09 receiving water is routinely sampled at the TFC-R003 location.

# Attachment B

# Self-Monitoring Reports

# Self-Monitoring Report
# LLNL Treatment Facility A (TFA)
# AREA TFA

1. Reporting Period: Business Month **January** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

January **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31**

Total monthly time facility operated (hours): **754**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **01-02-2014** |
| Influent pH: | **7.5** |
| Effluent pH: | **7.5** |
| Effluent Temperature (°C): | **18.8** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-109** | **1,120** | **0.0** |
| **W-262** | **186** | **0.0** |
| **W-404** | **1,439,266** | **32.0** |
| **W-408** | **488,200** | **11.0** |
| **W-415** | **1,722,240** | **39.1** |
| **W-457** | **421,504** | **10.0** |
| **W-518** | **192,718** | **4.3** |
| **W-522** | **649,836** | **15.5** |
| **W-605** | **400,260** | **9.0** |
| **W-614** | **483,036** | **11.0** |
| **W-712** | **294,352** | **6.3** |
| **W-714** | **370,164** | **8.1** |
| **W-903** | **668,792** | **14.8** |
| **W-904** | **1,266,336** | **28.4** |
| **W-1001** | **121,816** | **3.1** |
| **W-1004** | **468,320** | **10.8** |
| **W-1009** | **1,004,080** | **22.5** |
| Total: | **9,992,226** | **225.9** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **West Perimeter Drainage Channel** | **TFB-R002** | **4,753,126** |

# Self-Monitoring Report (cont'd)
# LLNL Treatment Facility A (TFA)
# AREA TFA

**Arroyo Seco** **TFG-ASW** **5,239,100**

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **02-02-2014**

# Self-Monitoring Report
# LLNL Treatment Facility A (TFA)
# AREA TFA

1. Reporting Period: Business Month **February** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

February **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28**

Total monthly time facility operated (hours): **677**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **02-03-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.0** |
| Effluent Temperature (°C): | **18** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-109** | **0** | **0.0** |
| **W-262** | **0** | **0.0** |
| **W-404** | **1,288,084** | **31.4** |
| **W-408** | **434,456** | **10.9** |
| **W-415** | **1,524,816** | **37.9** |
| **W-457** | **368,408** | **8.9** |
| **W-518** | **172,748** | **4.3** |
| **W-522** | **568,592** | **13.8** |
| **W-605** | **360,000** | **9.0** |
| **W-614** | **435,216** | **11.0** |
| **W-712** | **260,808** | **6.5** |
| **W-714** | **333,368** | **8.3** |
| **W-903** | **602,272** | **14.1** |
| **W-904** | **1,139,168** | **29.9** |
| **W-1001** | **104,312** | **2.9** |
| **W-1004** | **420,656** | **10.5** |
| **W-1009** | **905,536** | **22.5** |
| Total: | **8,918,440** | **221.9** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **West Perimeter Drainage Channel** | **TFB-R002** | **4,238,140** |

# Self-Monitoring Report (cont'd)
# LLNL Treatment Facility A (TFA)
# AREA TFA

**Arroyo Seco** **TFG-ASW** **4,680,300**

6. Comments:
W-904 down on 2-27-14 due to low flow rate fault. Unable to restart.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Scott Cavagnaro Date: **03-05-2014**

# Self-Monitoring Report
# LLNL Treatment Facility A (TFA)
# AREA TFA

1. Reporting Period: Business Month **March** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

March **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31**

Total monthly time facility operated (hours): **751**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **03-04-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.5** |
| Effluent Temperature (°C): | **22.5** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-109** | **381,936** | **27.0** |
| **W-262** | **0** | **0.0** |
| **W-404** | **1,452,500** | **33.9** |
| **W-408** | **499,280** | **11.9** |
| **W-415** | **1,782,992** | **38.4** |
| **W-457** | **416,584** | **10.2** |
| **W-518** | **192,440** | **4.4** |
| **W-522** | **659,080** | **14.6** |
| **W-605** | **395,312** | **8.9** |
| **W-614** | **485,576** | **11.0** |
| **W-712** | **283,728** | **6.5** |
| **W-714** | **397,072** | **8.3** |
| **W-903** | **676,064** | **15.4** |
| **W-904** | **308,864** | **30.0** |
| **W-1001** | **98,790** | **2.6** |
| **W-1004** | **467,280** | **10.7** |
| **W-1009** | **1,016,000** | **22.8** |
| Total: | **9,513,498** | **256.6** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **West Perimeter Drainage Channel** | **TFB-R002** | **4,756,290** |

# Self-Monitoring Report (cont'd)
# LLNL Treatment Facility A (TFA)
# AREA TFA

**Arroyo Seco** **TFG-ASW** **4,757,208**

6. Comments:

W-904 started on 3-5-14. W-904 down on 3-14-14 due to pump failure. Started W-109 on 3-21-14.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **04-04-2014**

# Self-Monitoring Report
# LLNL Solar Treatment Unit 06 (STU06)
# AREA TFA-E

1. Reporting Period: Business Month **January** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 |
| | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |

Total monthly time facility operated (hours): **0**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **Not Measured**
Influent pH:
Effluent pH:
Effluent Temperature (°C):

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-254** | **0** | **0.0** |
| Total: | **0** | **0.0** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Seco** | **TFG-ASW** | **0** |

6. Comments:
Facility secured due to lack of water in extraction well.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Scott Kawaguchi Date: **01-31-2014**

# Self-Monitoring Report
# LLNL Solar Treatment Unit 06 (STU06)
# AREA TFA-E

1. Reporting Period: Business Month **February** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January | 31 | | | | | | | | | | | | | | |
| February | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 |
| | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | | | |

Total monthly time facility operated (hours): **0**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **Not Measured**
Influent pH:
Effluent pH:
Effluent Temperature (°C):

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-254** | **0** | **0.0** |
| Total: | **0** | **0.0** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Seco** | **TFG-ASW** | **0** |

6. Comments:
Facility secured due to lack of water in extraction well.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Steve Kawaguchi Date: **02-28-2014**

# Self-Monitoring Report
# LLNL Solar Treatment Unit 06 (STU06)
# AREA TFA-E

1. Reporting Period: Business Month **March** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| February | 28 | | | | | | | | | | | | | | |
| March | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 |
| | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |

Total monthly time facility operated (hours): **0**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **Not Measured**
Influent pH:
Effluent pH:
Effluent Temperature (°C):

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-254** | **0** | **0.0** |
| Total: | **0** | **0.0** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Seco** | **TFG-ASW** | **0** |

6. Comments:
Facility secured due to lack of water in extraction well.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **03-31-2014**

# Self-Monitoring Report
# LLNL Treatment Facility B (TFB)
# AREA TFB

1. Reporting Period: Business Month **January** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

January **01 02 03** 04 05 06 **07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31**

Total monthly time facility operated (hours): **663**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **01-08-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.5** |
| Effluent Temperature (°C): | **18** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-357** | **283,128** | **8.5** |
| **W-610** | **257,016** | **6.6** |
| **W-620** | **216,420** | **5.6** |
| **W-621** | **200** | **0.0** |
| **W-655** | **136** | **0.0** |
| **W-704** | **722,160** | **18.4** |
| **W-1423** | **161,076** | **4.6** |
| **W-2501** | **655,632** | **16.6** |
| **W-2502** | **286,153** | **8.0** |
| Total: | **2,581,921** | **68.3** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **West Perimeter Drainage Channel** | **TFB-R002** | **2,303,472** |
| **Building 133 Cooling Tower** | **TFB-E-B133CT** | **278,449** |

6. Comments:

Facility was shutdown on 01-03-2014 due to broken pipe. Facility was restarted on 01-07-2014.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

**Self-Monitoring Report (cont'd)**
**LLNL Treatment Facility B (TFB)**
**AREA TFB**

Operator Signature: _____ Date: **02-02-2014**

# Land Observation Report date:
# TFB-R002 - West Perimeter Drainage Channel

1. Reporting Period: Business Month **January** Year **2014**

2. Date compliance sampling performed **01-08-2014**

3. Weather Conditions:

| | |
|---|---|
| Average air tempertaure (°C): | **10.12** |
| 6-day total precipitation (in): | **0.00** |
| Average wind speed/direction (mph): | **3/ SE** |

4. Receiving Data:

| Sample Location | pH | Temperature (C) |
|---|---|---|
| **Receiving Water** | **7.5** | **17.3** |

5. Land Observations, as "Yes" or "No", for reporting month:

| Visual Observations | Effluent | Receiving Water |
|---|---|---|
| Floating and Suspended Materials of Waste Origin | **No** | **No** |
| Odor | **No** | **No** |
| Discoloration and Turbidity | Not Required | **No** |
| Evidence of Beneficial Water Use | Not Required | **No** |

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **02-07-2014**

# Self-Monitoring Report
# LLNL Treatment Facility B (TFB)
# AREA TFB

1. Reporting Period: Business Month **February** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

February **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28**

Total monthly time facility operated (hours): **664**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **02-03-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.5** |
| Effluent Temperature (°C): | **17.8** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-357** | **317,296** | **8.4** |
| **W-610** | **263,496** | **6.7** |
| **W-620** | **215,332** | **5.3** |
| **W-621** | **0** | **0.0** |
| **W-655** | **0** | **0.0** |
| **W-704** | **698,984** | **17.7** |
| **W-1423** | **153,992** | **4.0** |
| **W-2501** | **658,759** | **16.7** |
| **W-2502** | **270,834** | **6.8** |
| Total: | **2,578,693** | **65.6** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **West Perimeter Drainage Channel** | **TFB-R002** | **2,145,282** |
| **Building 133 Cooling Tower** | **TFB-E-B133CT** | **433,411** |

6. Comments:

Facility was shutdown on 02-23-2014 due to low flow fault. Facility was restarted on 02-24-2014.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

**Self-Monitoring Report (cont'd)**
**LLNL Treatment Facility B (TFB)**
**AREA TFB**

Operator Signature: _____ Date: **03-05-2014**

# Land Observation Report date:
# TFB-R002 - West Perimeter Drainage Channel

1. Reporting Period: Business Month **February** Year **2014**

2. Date compliance sampling performed **02-03-2014**

3. Weather Conditions:

| | |
|---|---|
| Average air tempertaure (°C): | **9.93** |
| 6-day total precipitation (in): | **0.36** |
| Average wind speed/direction (mph): | **4/ S** |

4. Receiving Data:

| Sample Location | pH | Temperature (C) |
|---|---|---|
| **Receiving Water** | **N/M** | **N/M** |

5. Land Observations, as "Yes" or "No", for reporting month:

| Visual Observations | Effluent | Receiving Water |
|---|---|---|
| Floating and Suspended Materials of Waste Origin | **No** | **No** |
| Odor | **No** | **No** |
| Discoloration and Turbidity | Not Required | **No** |
| Evidence of Beneficial Water Use | Not Required | **No** |

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **03-10-2014**

# Self-Monitoring Report
# LLNL Treatment Facility B (TFB)
# AREA TFB

1. Reporting Period: Business Month **March** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

March **01 02 03 04 05 06 07** 08 09 **10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31**

Total monthly time facility operated (hours): **642**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **03-03-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.5** |
| Effluent Temperature (°C): | **20** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-357** | **293,120** | **7.9** |
| **W-610** | **259,428** | **6.9** |
| **W-620** | **210,924** | **5.0** |
| **W-621** | **0** | **0.0** |
| **W-655** | **2** | **0.0** |
| **W-704** | **651,520** | **17.5** |
| **W-1423** | **158,624** | **3.8** |
| **W-2501** | **232,799** | **16.5** |
| **W-2502** | **269,134** | **7.0** |
| Total: | **2,075,551** | **64.6** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **West Perimeter Drainage Channel** | **TFB-R002** | **1,515,803** |
| **Building 133 Cooling Tower** | **TFB-E-B133CT** | **559,748** |

6. Comments:

Facility was shutdown on 03-07-2014 due to low flow fault. Facility was restarted on 03-10-2014. Facility was shutdown on 03-10-2014 due to low air stripper flow fault. Facility was restarted on 03-11-2014. W-2501 operated intermittently throughout the month. Facility was shutdown on 03-11-2014 for

interlock checks. Facility was restarted on 03-12-2014. Facility was shutdown on 03-12-2014 due to low flow fault. Facility was restarted on 03-13-2014. Facility was shutdown on 03-27-2014 due to high flow fault. Facility was restarted on 03-28-2014.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **04-04-2014**

# Land Observation Report date:
# TFB-R002 - West Perimeter Drainage Channel

1. Reporting Period: Business Month **March** Year **2014**

2. Date compliance sampling performed **03-03-2014**

3. Weather Conditions:

| | |
|---|---|
| Average air tempertaure (°C): | **12.92** |
| 6-day total precipitation (in): | **0.99** |
| Average wind speed/direction (mph): | **4/ SSE** |

4. Receiving Data:

| Sample Location | pH | Temperature (C) |
|---|---|---|
| **Receiving Water** | **N/M** | **N/M** |

5. Land Observations, as "Yes" or "No", for reporting month:

| Visual Observations | Effluent | Receiving Water |
|---|---|---|
| Floating and Suspended Materials of Waste Origin | **No** | **No** |
| Odor | **No** | **No** |
| Discoloration and Turbidity | Not Required | **No** |
| Evidence of Beneficial Water Use | Not Required | **No** |

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **04-08-2014**

# Self-Monitoring Report
# LLNL Treatment Facility C (TFC)
# AREA TFC

1. Reporting Period: Business Month **January** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

January **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31**

Total monthly time facility operated (hours): **753**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **01-09-2014** |
| Influent pH: | **7.5** |
| Effluent pH: | **7.5** |
| Effluent Temperature (°C): | **19.5** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-701** | **594,944** | **13.1** |
| **W-1015** | **125,080** | **2.9** |
| **W-1102** | **170,106** | **3.7** |
| **W-1103** | **94,533** | **2.2** |
| **W-1104** | **1,206,992** | **27.1** |
| **W-1116** | **71,171** | **1.5** |
| Total: | **2,262,826** | **50.5** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **2,262,826** |

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **02-02-2014**

# Land Observation Report date:
# TFC-R003 - Arroyo Las Positas

1. Reporting Period: Business Month **January** Year **2014**

2. Date compliance sampling performed **01-09-2014**

3. Weather Conditions:

| | |
|---|---|
| Average air tempertaure (°C): | **10.16** |
| 6-day total precipitation (in): | **0.00** |
| Average wind speed/direction (mph): | **3/ SSE** |

4. Receiving Data:

| Sample Location | pH | Temperature (C) |
|---|---|---|
| **Receiving Water** | **7.0** | **12.5** |

5. Land Observations, as "Yes" or "No", for reporting month:

| Visual Observations | Effluent | Receiving Water |
|---|---|---|
| Floating and Suspended Materials of Waste Origin | **No** | **No** |
| Odor | **No** | **No** |
| Discoloration and Turbidity | Not Required | **No** |
| Evidence of Beneficial Water Use | Not Required | **No** |

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Scott Cawagas Date: **02-07-2014**

# Self-Monitoring Report
# LLNL Treatment Facility C (TFC)
# AREA TFC

1. Reporting Period: Business Month **February** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

February **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28**

Total monthly time facility operated (hours): **681**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **02-03-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.5** |
| Effluent Temperature (°C): | **18.1** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-701** | **539,768** | **12.7** |
| **W-1015** | **106,460** | **2.8** |
| **W-1102** | **150,628** | **3.6** |
| **W-1103** | **72,854** | **2.1** |
| **W-1104** | **1,078,608** | **27.0** |
| **W-1116** | **63,283** | **1.8** |
| Total: | **2,011,601** | **50.0** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **2,011,601** |

6. Comments:
W-1103 secured on 2-24-14. W-1015 secured on 2-27-14.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **03-05-2014**

# Land Observation Report date:
# TFC-R003 - Arroyo Las Positas

1. Reporting Period: Business Month **February** Year **2014**

2. Date compliance sampling performed **02-03-2014**

3. Weather Conditions:

| | |
|---|---|
| Average air tempertaure (°C): | **9.93** |
| 6-day total precipitation (in): | **0.36** |
| Average wind speed/direction (mph): | **4/ S** |

4. Receiving Data:

| Sample Location | pH | Temperature (C) |
|---|---|---|
| **Receiving Water** | **N/M** | **N/M** |

5. Land Observations, as "Yes" or "No", for reporting month:

| Visual Observations | Effluent | Receiving Water |
|---|---|---|
| Floating and Suspended Materials of Waste Origin | **No** | **No** |
| Odor | **No** | **No** |
| Discoloration and Turbidity | Not Required | **No** |
| Evidence of Beneficial Water Use | Not Required | **No** |

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **03-10-2014**

# Self-Monitoring Report
# LLNL Treatment Facility C (TFC)
# AREA TFC

1. Reporting Period: Business Month **March** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

March **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31**

Total monthly time facility operated (hours): **737**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **03-03-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.0** |
| Effluent Temperature (°C): | **19.5** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-701** | **255,840** | **13.6** |
| **W-1015** | **0** | **0.0** |
| **W-1102** | **16,564** | **3.9** |
| **W-1103** | **0** | **0.0** |
| **W-1104** | **1,172,960** | **26.8** |
| **W-1116** | **68,340** | **1.8** |
| Total: | **1,513,704** | **46.1** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **1,513,704** |

6. Comments:

Facility was shutdown on 03-12-2014 for interlock checks. Facility was restarted on 03-13-2014. W-1102 secured on 3-3-14. W-701 down on 3-6-14 due to pump failure. W-701 restarted on 3-24-14.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **04-04-2014**

# Land Observation Report date:
# TFC-R003 - Arroyo Las Positas

1. Reporting Period: Business Month **March** Year **2014**

2. Date compliance sampling performed **03-03-2014**

3. Weather Conditions:

| | |
|---|---|
| Average air tempertaure (°C): | **12.92** |
| 6-day total precipitation (in): | **0.99** |
| Average wind speed/direction (mph): | **4/ SSE** |

4. Receiving Data:

| Sample Location | pH | Temperature (C) |
|---|---|---|
| **Receiving Water** | **N/M** | **N/M** |

5. Land Observations, as "Yes" or "No", for reporting month:

| Visual Observations | Effluent | Receiving Water |
|---|---|---|
| Floating and Suspended Materials of Waste Origin | **No** | **No** |
| Odor | **No** | **No** |
| Discoloration and Turbidity | Not Required | **No** |
| Evidence of Beneficial Water Use | Not Required | **No** |

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Scott Kawazu Date: **04-08-2014**

# Self-Monitoring Report
# LLNL Mini Treatment Unit 1 (MTU1)
# AREA TFC-E

1. Reporting Period: Business Month **January** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January | **01** | **02** | **03** | **04** | **05** | **06** | **07** | **08** | **09** | **10** | **11** | **12** | **13** | **14** | **15** |
| | **16** | **17** | **18** | **19** | **20** | **21** | **22** | **23** | **24** | **25** | **26** | **27** | **28** | **29** | **30** |

Total monthly time facility operated (hours): **657**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **01-02-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.5** |
| Effluent Temperature (°C): | **18.7** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-368** | **55,188** | **1.4** |
| **W-413** | **536,781** | **16.4** |
| Total: | **591,969** | **17.8** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **591,969** |

6. Comments:

Secured facility on 1-21-14 at 0900 for EE support of wells operating system and restarted on 1-22-14 at 1520 hours. Secured facility on 1-26-14 for resin column change out and re-started on 1-27-14 at 1518 hours.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **02-12-2014**

# Self-Monitoring Report
# LLNL Mini Treatment Unit 1 (MTU1)
# AREA TFC-E

1. Reporting Period: Business Month **February** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January | **31** | | | | | | | | | | | | | | |
| February | **01** | **02** | **03** | **04** | **05** | **06** | **07** | **08** | **09** | **10** | **11** | **12** | 13 | 14 | 15 |
| | **16** | **17** | **18** | **19** | **20** | **21** | **22** | **23** | **24** | **25** | **26** | **27** | | | |

Total monthly time facility operated (hours): **639**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **02-05-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.5** |
| Effluent Temperature (°C): | **19** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-368** | **45,757** | **1.0** |
| **W-413** | **257,722** | **0.0** |
| Total: | **303,479** | **1.0** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **303,479** |

6. Comments:

Well 413 was down due to bad pump. Pump was replaced and well re-started on 2-12-14.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **03-05-2014**

# Self-Monitoring Report
# LLNL Mini Treatment Unit 1 (MTU1)
# AREA TFC-E

1. Reporting Period: Business Month **March** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| February | **28** | | | | | | | | | | | | | | |
| March | **01** | **02** | **03** | **04** | **05** | **06** | **07** | **08** | **09** | **10** | **11** | **12** | **13** | **14** | **15** |
| | 16 | **17** | **18** | **19** | **20** | **21** | **22** | **23** | **24** | **25** | **26** | **27** | **28** | **29** | **30** | **31** |

Total monthly time facility operated (hours): **716**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **03-05-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.5** |
| Effluent Temperature (°C): | **20.4** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-368** | **43,866** | **1.0** |
| **W-413** | **705,479** | **16.5** |
| Total: | **749,345** | **17.5** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **749,345** |

6. Comments:
Facility was down 3/16/14 due to air stripper high level.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **04-11-2014**

# Self-Monitoring Report
# LLNL Portable Treatment Unit 1 (PTU1)
# AREA TFC-SE

1. Reporting Period: Business Month **January** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

January **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31**

Total monthly time facility operated (hours): **755**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **01-06-2014** |
| Influent pH: | **7.5** |
| Effluent pH: | **8.0** |
| Effluent Temperature (°C): | **19.2** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1213** | **90,557** | **2.1** |
| **W-2201** | **450,534** | **10.0** |
| Total: | **541,091** | **12.1** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **541,091** |

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **02-02-2014**

# Self-Monitoring Report
# LLNL Portable Treatment Unit 1 (PTU1)
# AREA TFC-SE

1. Reporting Period: Business Month **February** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

February **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28**

Total monthly time facility operated (hours): **680**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **02-03-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.5** |
| Effluent Temperature (°C): | **19.6** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1213** | **81,324** | **2.0** |
| **W-2201** | **406,612** | **10.1** |
| Total: | **487,936** | **12.1** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **487,936** |

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **03-04-2014**

# Self-Monitoring Report
# LLNL Portable Treatment Unit 1 (PTU1)
# AREA TFC-SE

1. Reporting Period: Business Month **March** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

March **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31**

Total monthly time facility operated (hours): **754**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **03-03-2014** |
| Influent pH: | **7.5** |
| Effluent pH: | **7.5** |
| Effluent Temperature (°C): | **19.6** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1213** | **91,066** | **2.1** |
| **W-2201** | **448,157** | **10.1** |
| Total: | **539,223** | **12.2** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **539,223** |

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **04-04-2014**

# Self-Monitoring Report
# LLNL Treatment Facility D (TFD)
# AREA TFD

1. Reporting Period: Business Month **January** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

January **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31**

Total monthly time facility operated (hours): **753**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **01-02-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.5** |
| Effluent Temperature (°C): | **19.6** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-351** | **49,870** | **1.2** |
| **W-653** | **2,907** | **3.0** |
| **W-906** | **0** | **0.0** |
| **W-907-2** | **343,478** | **9.9** |
| **W-2011** | **6,224** | **3.0** |
| **W-2101** | **7,324** | **3.0** |
| **W-2102** | **14,363** | **3.0** |
| **W-1206** | **284,065** | **10.5** |
| **W-1208** | **925,169** | **20.6** |
| Total: | **1,633,400** | **54.2** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **1,633,400** |
| **TFD irrigation supply** | **TFD-IRR** | **0** |

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

**Self-Monitoring Report (cont'd)**
**LLNL Treatment Facility D (TFD)**
**AREA TFD**

Operator Signature: _____ Date: **02-02-2014**

# Self-Monitoring Report
# LLNL Treatment Facility D (TFD)
# AREA TFD

1. Reporting Period: Business Month **February** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

February **01** 02 03 04 05 **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
**16** **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28**

Total monthly time facility operated (hours): **552**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **02-05-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.5** |
| Effluent Temperature (°C): | **21.2** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-351** | **39,468** | **1.2** |
| **W-653** | **2,150** | **3.0** |
| **W-906** | **0** | **0.0** |
| **W-2011** | **4,652** | **3.0** |
| **W-2102** | **12,741** | **3.0** |
| **W-1208** | **731,187** | **22.6** |
| **W-1206** | **364,031** | **12.0** |
| **W-907-2** | **329,325** | **10.4** |
| **W-2101** | **5,507** | **3.0** |
| Total: | **1,489,061** | **58.2** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **1,489,061** |
| **TFD irrigation supply** | **TFD-IRR** | **0** |

6. Comments:

Facility was shutdown on 02-01-2014 due to high air stripper manifold pressure. Air stripper diffusers replaced. Facility was restarted on 02-06-2014.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

**Self-Monitoring Report (cont'd)**
**LLNL Treatment Facility D (TFD)**
**AREA TFD**

Operator Signature: _____ Date: **03-07-2014**

# Self-Monitoring Report
# LLNL Treatment Facility D (TFD)
# AREA TFD

1. Reporting Period: Business Month **March** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

March **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31**

Total monthly time facility operated (hours): **751**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **03-04-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.5** |
| Effluent Temperature (°C): | **21.6** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-351** | **54,797** | **1.2** |
| **W-653** | **2,685** | **3.0** |
| **W-906** | **75** | **0.0** |
| **W-907-2** | **439,873** | **10.2** |
| **W-2011** | **6,076** | **3.0** |
| **W-2101** | **7,073** | **3.0** |
| **W-2102** | **15,970** | **3.0** |
| **W-1206** | **356,275** | **12.0** |
| **W-1208** | **993,843** | **10.2** |
| Total: | **1,876,667** | **45.6** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **1,876,667** |
| **TFD irrigation supply** | **TFD-IRR** | **0** |

6. Comments:

W-1206 down on 3-1-14 due to low flow rate fault. W-1206 restarted on 3-11-14.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

**Self-Monitoring Report (cont'd)**
**LLNL Treatment Facility D (TFD)**
**AREA TFD**

Operator Signature: _____ Date: **04-04-2014**

# Self-Monitoring Report
# LLNL Portable Treatment Unit 8 (PTU8)
# AREA TFD-E

1. Reporting Period: Business Month **January** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

January **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30**

Total monthly time facility operated (hours): **720**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **01-02-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.5** |
| Effluent Temperature (°C): | **18.9** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-2006** | **821** | **0.0** |
| **W-1301** | **32,742** | **0.6** |
| **W-1303** | **62,028** | **1.3** |
| **W-1306** | **9,652** | **0.2** |
| **W-1307** | **288,891** | **6.2** |
| **W-1550** | **18,243** | **0.4** |
| **W-2203** | **8,423** | **0.2** |
| Total: | **420,800** | **8.9** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **420,800** |

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **02-02-2014**

# Self-Monitoring Report
# LLNL Portable Treatment Unit 8 (PTU8)
# AREA TFD-E

1. Reporting Period: Business Month **February** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January | **31** | | | | | | | | | | | | | |
| February | **01** | **02** | **03** | **04** | **05** | **06** | **07** | **08** | **09** | **10** | **11** | **12** | **13** | **14** | **15** |
| | **16** | **17** | **18** | **19** | **20** | **21** | **22** | **23** | **24** | **25** | **26** | **27** | | | |

Total monthly time facility operated (hours): **672**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **02-05-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.5** |
| Effluent Temperature (°C): | **18.8** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-2006** | **714** | **0.0** |
| **W-1301** | **25,657** | **0.6** |
| **W-1306** | **8,399** | **0.2** |
| **W-1307** | **250,289** | **5.6** |
| **W-1550** | **16,120** | **0.3** |
| **W-2203** | **7,226** | **0.2** |
| **W-1303** | **55,496** | **1.2** |
| Total: | **363,901** | **8.1** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **363,901** |

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **03-05-2014**

# Self-Monitoring Report
# LLNL Portable Treatment Unit 8 (PTU8)
# AREA TFD-E

1. Reporting Period: Business Month **March** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| February | **28** | | | | | | | | | | | | | | |
| March | **01** | **02** | **03** | **04** | **05** | **06** | **07** | **08** | **09** | **10** | **11** | **12** | **13** | **14** | **15** |
| | **16** | **17** | **18** | **19** | **20** | **21** | **22** | **23** | **24** | **25** | **26** | **27** | **28** | **29** | **30** | **31** |

Total monthly time facility operated (hours): **767**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **03-05-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.5** |
| Effluent Temperature (°C): | **20.4** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-2006** | **754** | **0.0** |
| **W-1301** | **26,503** | **0.6** |
| **W-1303** | **55,428** | **1.2** |
| **W-1306** | **8,313** | **0.2** |
| **W-1307** | **265,726** | **6.1** |
| **W-1550** | **17,087** | **0.3** |
| **W-2203** | **7,319** | **0.2** |
| Total: | **381,130** | **8.6** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **381,130** |

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **04-11-2014**

# Self-Monitoring Report
# LLNL Portable Treatment Unit 10 (PTU10)
# AREA TFD-HPD

1. Reporting Period: Business Month **January** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January | **01** | **02** | **03** | **04** | **05** | **06** | **07** | **08** | **09** | **10** | **11** | **12** | **13** | **14** | **15** |
| | **16** | **17** | **18** | **19** | **20** | **21** | **22** | **23** | **24** | 25 | 26 | **27** | **28** | **29** | **30** | **31** |

Total monthly time facility operated (hours): **677**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **01-07-2014** |
| Influent pH: | **7.5** |
| Effluent pH: | **7.5** |
| Effluent Temperature (°C): | **20.5** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1254** | **229,698** | **4.8** |
| Total: | **229,698** | **4.8** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **229,698** |

6. Comments:

Facility was shutdown on 01-24-2014 at 08:35 for power outage over the weekend. Facility was restarted on 01-27-2014 at 11:33.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **02-18-2014**

# Self-Monitoring Report
# LLNL Portable Treatment Unit 10 (PTU10)
# AREA TFD-HPD

1. Reporting Period: Business Month **February** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

February **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28**

Total monthly time facility operated (hours): **679**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **02-11-2014** |
| Influent pH: | **7.5** |
| Effluent pH: | **7.5** |
| Effluent Temperature (°C): | **18.3** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1254** | **214,209** | **5.3** |
| Total: | **214,209** | **5.3** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **214,209** |

6. Comments:
NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **03-19-2014**

# Self-Monitoring Report
# LLNL Portable Treatment Unit 10 (PTU10)
# AREA TFD-HPD

1. Reporting Period: Business Month **March** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| March | **01** | **02** | **03** | **04** | **05** | **06** | **07** | **08** | **09** | **10** | **11** | **12** | **13** | **14** | **15** |
| | **16** | **17** | **18** | **19** | **20** | **21** | **22** | **23** | **24** | **25** | **26** | **27** | **28** | **29** | **30** | **31** |

Total monthly time facility operated (hours): **753**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **03-12-2014** |
| Influent pH: | **7.5** |
| Effluent pH: | **7.5** |
| Effluent Temperature (°C): | **19.2** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1254** | **210,430** | **4.5** |
| Total: | **210,430** | **4.5** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **210,430** |

6. Comments:
NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **04-15-2014**

# Self-Monitoring Report
# LLNL ISB01 (ISB01)
# AREA TFD-HPD

1. Reporting Period: Business Month **January** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January | **01** | **02** | **03** | **04** | **05** | **06** | 07 | 08 | **09** | **10** | **11** | **12** | **13** | **14** | **15** |
| | 16 | 17 | **18** | **19** | **20** | **21** | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | **31** |

Total monthly time facility operated (hours): **355**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **Not Measured**
Influent pH:
Effluent pH:
Effluent Temperature (°C):

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1650** | **785** | **1.6** |
| **W-1653** | **428** | **1.1** |
| **W-1655** | **109** | **3.0** |
| **W-1657** | **2** | **1.0** |
| Total: | **1,324** | **6.8** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **ISB01 injection well** | **W-1552** | **1,324** |

6. Comments:

Compliance sampling is not required at this facility due to the fact that ISB01 is a closed loop system and water is not discharged to the environment. Water was circulated through the system but was not treated. On 01-16-14 facility water (177.67gals) were diverted into the premixing tote. This operation was concluded on 01-17-14 after approximately 22.33 gals of facility water were diverted into the premixing tote. On 01-31-14, 56.31 gals of facility water were diverted into the premixing tote. The facility did not operate while the Larox pump was injecting ethyl lactate solution into W-1552. The facility was shut down during the time that facility water was being diverted to the ethyl lactate premixing tote. The facility was shut down during well recovery time at W-1552.

# Self-Monitoring Report (cont'd)
# LLNL ISB01 (ISB01)
# AREA TFD-HPD

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **02-19-2014**

# Self-Monitoring Report
# LLNL ISB01 (ISB01)
# AREA TFD-HPD

1. Reporting Period: Business Month **February** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| February | **01** | 02 | **03** | **04** | **05** | 06 | **07** | **08** | **09** | **10** | **11** | **12** | 13 | **14** | **15** |
| | **16** | **17** | **18** | 19 | 20 | **21** | **22** | **23** | **24** | 25 | **26** | **27** | **28** | | |

Total monthly time facility operated (hours): **396**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **Not Measured**
Influent pH:
Effluent pH:
Effluent Temperature (°C):

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1650** | **799** | **1.9** |
| **W-1653** | **469** | **1.5** |
| **W-1655** | **20** | **1.9** |
| **W-1657** | **0** | **0.0** |
| Total: | **1,288** | **5.3** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **ISB01 injection well** | **W-1552** | **1,288** |

6. Comments:

Compliance sampling is not required at this facility due to the fact that ISB01 is a closed loop system and water is not discharged to the environment. Water was circulated through the system but was not treated. On 02-03-14 facility water (139.28 gals) were diverted into the premixing tote. This operation was concluded on 02-04-14 after approximately 5 gals of facility water were diverted into the premixing tote. The facility did not operate while the Larox pump was injecting ethyl lactate solution into W-1552. The facility was shut down during the time that facility water was being diverted to the ethyl lactate premixing tote. The facility was shut down during well recovery time at W-1552.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

# Self-Monitoring Report (cont'd)
# LLNL ISB01 (ISB01)
# AREA TFD-HPD

Operator Signature: Billy Field Date: **03-25-2014**

# Self-Monitoring Report
# LLNL ISB01 (ISB01)
# AREA TFD-HPD

1. Reporting Period: Business Month **March** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

March **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31**

Total monthly time facility operated (hours): **703**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **Not Measured**
Influent pH:
Effluent pH:
Effluent Temperature (°C):

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1650** | **1,190** | **0.9** |
| **W-1653** | **926** | **1.1** |
| **W-1655** | **0** | **0.0** |
| **W-1657** | **0** | **0.0** |
| Total: | **2,116** | **2.0** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **ISB01 injection well** | **W-1552** | **2,116** |

6. Comments:

Compliance sampling is not required at this facility due to the fact that ISB01 is a closed loop system, and water is not discharged to the environment. Water was circulated through the system but was not treated. The facility shut down at 07:16 on 3-30-14 due to an electronic overload of the pump at W-1650. The facility was restarted at 14:44 on 3-31-14. The facility shut down at 15:06 on 3-31-14 due to an electronic overload of the pump at W-1650.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **04-24-2014**

# Self-Monitoring Report
# LLNL Portable Treatment Unit 2 (PTU2)
# AREA TFD-S

1. Reporting Period: Business Month **January** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

January **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31**

Total monthly time facility operated (hours): **753**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **01-02-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.0** |
| Effluent Temperature (°C): | **22.9** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1503** | **445,864** | **10.1** |
| **W-1504** | **375,764** | **8.4** |
| **W-1510** | **216,864** | **4.8** |
| Total: | **1,038,492** | **23.3** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **1,038,492** |

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **02-03-2014**

# Self-Monitoring Report
# LLNL Portable Treatment Unit 2 (PTU2)
# AREA TFD-S

1. Reporting Period: Business Month **February** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| February | **01** | 02 | 03 | 04 | **05** | **06** | **07** | **08** | **09** | **10** | **11** | **12** | **13** | **14** | **15** |
| | **16** | **17** | **18** | **19** | **20** | **21** | **22** | **23** | **24** | **25** | **26** | **27** | **28** | | |

Total monthly time facility operated (hours): **602**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **02-11-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.0** |
| Effluent Temperature (°C): | **22.8** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1503** | **345,384** | **10.5** |
| **W-1504** | **299,764** | **8.4** |
| **W-1510** | **173,376** | **4.8** |
| Total: | **818,524** | **23.7** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **818,524** |

6. Comments:

Facility was shutdown on 02-02-2014 due to blower failure. Facility was restarted on 02-05-2014.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **03-03-2014**

# Self-Monitoring Report
# LLNL Portable Treatment Unit 2 (PTU2)
# AREA TFD-S

1. Reporting Period: Business Month **March** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| March | **01** | **02** | **03** | **04** | **05** | **06** | **07** | **08** | **09** | **10** | **11** | **12** | **13** | **14** | **15** |
| | 16 | **17** | **18** | **19** | **20** | **21** | **22** | 23 | **24** | **25** | **26** | **27** | **28** | **29** | **30** |

Total monthly time facility operated (hours): **638**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **03-05-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.0** |
| Effluent Temperature (°C): | **22.9** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1503** | **394,632** | **10.7** |
| **W-1504** | **310,130** | **8.3** |
| **W-1510** | **145,564** | **4.7** |
| Total: | **850,326** | **23.7** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **850,326** |

6. Comments:

The following shutdown dates were caused by W-1510 flow meter failure alarms.
Facility was shutdown on 03-15-2014. Facility was restarted on 03-17-2014.
Facility was shutdown on 03-22-2014. Facility was restarted on 03-24-2014.
Facility was shutdown on 03-24-2014. Facility was restarted on 03-25-2014.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **04-07-2014**

# Self-Monitoring Report
# LLNL Portable Treatment Unit 11 (PTU11)
# AREA TFD-SE

1. Reporting Period: Business Month **January** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January | **01** | **02** | **03** | **04** | **05** | **06** | **07** | **08** | **09** | **10** | **11** | **12** | **13** | **14** | **15** |
| | **16** | **17** | **18** | **19** | **20** | **21** | **22** | **23** | **24** | **25** | **26** | **27** | **28** | **29** | **30** |

Total monthly time facility operated (hours): **720**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **01-02-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.5** |
| Effluent Temperature (°C): | **19.1** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-314** | **275,777** | **6.5** |
| **W-2005** | **25,180** | **0.9** |
| **W-1308** | **65,183** | **1.5** |
| **W-1403** | **42,644** | **1.0** |
| **W-1904** | **0** | **0.0** |
| **SIP-ETC-201** | **0** | **0.0** |
| Total: | **408,784** | **9.9** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **408,784** |

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **02-02-2014**

# Self-Monitoring Report
# LLNL Portable Treatment Unit 11 (PTU11)
# AREA TFD-SE

1. Reporting Period: Business Month **February** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January | **31** | | | | | | | | | | | | | |
| February | **01** | **02** | **03** | **04** | **05** | **06** | **07** | **08** | **09** | **10** | **11** | **12** | **13** | **14** | **15** |
| | **16** | **17** | **18** | **19** | **20** | **21** | **22** | **23** | **24** | **25** | **26** | **27** | | | |

Total monthly time facility operated (hours): **672**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **02-05-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.5** |
| Effluent Temperature (°C): | **19.3** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-314** | **250,961** | **5.5** |
| **W-2005** | **32,216** | **0.7** |
| **W-1308** | **60,280** | **1.3** |
| **W-1403** | **40,731** | **0.9** |
| **W-1904** | **0** | **0.0** |
| **SIP-ETC-201** | **0** | **0.0** |
| Total: | **384,188** | **8.4** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **384,188** |

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **03-05-2014**

# Self-Monitoring Report
# LLNL Portable Treatment Unit 11 (PTU11)
# AREA TFD-SE

1. Reporting Period: Business Month **March** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| February | **28** | | | | | | | | | | | | | |
| March | **01** | **02** | **03** | **04** | **05** | **06** | **07** | **08** | **09** | **10** | **11** | **12** | **13** | **14** | **15** |
| | **16** | **17** | **18** | **19** | **20** | **21** | **22** | **23** | **24** | **25** | **26** | **27** | **28** | **29** | **30** |

Total monthly time facility operated (hours): **743**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **03-05-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.5** |
| Effluent Temperature (°C): | **19.8** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-314** | **245,433** | **5.6** |
| **W-2005** | **33,709** | **0.7** |
| **W-1308** | **56,651** | **1.3** |
| **W-1403** | **40,828** | **0.8** |
| **W-1904** | **0** | **0.0** |
| **SIP-ETC-201** | **0** | **0.0** |
| Total: | **376,621** | **8.4** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **376,621** |

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **04-11-2014**

# Self-Monitoring Report
# LLNL Portable Treatment Unit 12 (PTU12)
# AREA TFD-SS

1. Reporting Period: Business Month **January** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

January **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31**

Total monthly time facility operated (hours): **721**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **01-02-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.0** |
| Effluent Temperature (°C): | **20.9** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1523** | **258,840** | **5.8** |
| **W-1601** | **22,099** | **1.0** |
| **W-1602** | **116,849** | **3.1** |
| **W-1603** | **214,775** | **11.4** |
| Total: | **612,563** | **21.2** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **612,563** |

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **02-03-2014**

# Self-Monitoring Report
# LLNL Portable Treatment Unit 12 (PTU12)
# AREA TFD-SS

1. Reporting Period: Business Month **February** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

February **01 02 03 04 05 06** 07 08 09 10 **11 12 13** 14 15
**16 17 18 19 20 21 22 23 24 25 26 27 28**

Total monthly time facility operated (hours): **553**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **02-12-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.0** |
| Effluent Temperature (°C): | **21** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1523** | **200,285** | **6.1** |
| **W-1601** | **30,040** | **1.0** |
| **W-1602** | **84,508** | **3.3** |
| **W-1603** | **378,749** | **11.2** |
| Total: | **693,582** | **21.6** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **693,582** |

6. Comments:

Facility was shutdown on 02-06-2014 for blower maintenance. Facility was restarted on 02-11-2014.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **03-03-2014**

# Self-Monitoring Report
# LLNL Portable Treatment Unit 12 (PTU12)
# AREA TFD-SS

1. Reporting Period: Business Month **March** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

March **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31**

Total monthly time facility operated (hours): **743**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **03-05-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.0** |
| Effluent Temperature (°C): | **21.1** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1523** | **255,081** | **5.8** |
| **W-1601** | **40,913** | **0.9** |
| **W-1602** | **119,018** | **2.9** |
| **W-1603** | **464,007** | **10.5** |
| Total: | **879,019** | **20.1** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **879,019** |

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **04-07-2014**

# Self-Monitoring Report
# LLNL Portable Treatment Unit 6 (PTU6)
# AREA TFD-W

1. Reporting Period: Business Month **January** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

December **31**
January **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31**

Total monthly time facility operated (hours): **778**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **01-15-2014** |
| Influent pH: | **7.5** |
| Effluent pH: | **7.5** |
| Effluent Temperature (°C): | **22.2** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1215** | **466,447** | **10.1** |
| **W-1216** | **462,989** | **10.1** |
| **W-1902** | **827,616** | **18.1** |
| Total: | **1,757,052** | **38.3** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **1,757,052** |

6. Comments:
NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **02-18-2014**

# Self-Monitoring Report
# LLNL Portable Treatment Unit 6 (PTU6)
# AREA TFD-W

1. Reporting Period: Business Month **February** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

February **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28**

Total monthly time facility operated (hours): **679**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **02-10-2014** |
| Influent pH: | **7.5** |
| Effluent pH: | **7.5** |
| Effluent Temperature (°C): | **19.8** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1215** | **406,475** | **10.1** |
| **W-1216** | **407,083** | **10.1** |
| **W-1902** | **728,713** | **18.1** |
| Total: | **1,542,271** | **38.3** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **1,542,271** |

6. Comments:

W-1902 was shut down at 10:27 on 2-28-14 for repair work that needed to be done on pipeline at wellhead.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **03-19-2014**

# Self-Monitoring Report
# LLNL Portable Treatment Unit 6 (PTU6)
# AREA TFD-W

1. Reporting Period: Business Month **March** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| March | **01** | **02** | **03** | **04** | **05** | **06** | **07** | **08** | **09** | **10** | **11** | **12** | **13** | **14** | **15** |
| | **16** | **17** | **18** | **19** | **20** | **21** | **22** | **23** | **24** | **25** | **26** | **27** | **28** | **29** | **30** | **31** |

Total monthly time facility operated (hours): **753**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **03-13-2014** |
| Influent pH: | **7.5** |
| Effluent pH: | **7.5** |
| Effluent Temperature (°C): | **21** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1215** | **452,086** | **10.0** |
| **W-1216** | **365,893** | **10.1** |
| **W-1902** | **726,025** | **18.1** |
| Total: | **1,544,004** | **38.2** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **1,544,004** |

6. Comments:

Startup of W-1902 at 13:24 on 3-3-14 after the repair of pipeline at W-1902 wellhead was completed. Shut down W-1216 at 08:50 on 3-6-14 to replace Level transmitter and perform SOP3.2. Restarted W-1216 at 13:10 on 3-12-14.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **04-15-2014**

# Self-Monitoring Report
# LLNL Vapor Extraction System 11 (VES11)
# AREA VTFD-ETCS

1. Reporting Period: Business Month **January** Year **2014**

2. Dates (in **bold** and underline ) treatment facility operated

January **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31**

3. Wellfield Data:

| Source | Monthly Volume(cu. ft) | Instantaneous Flow Rate(scfm) | P(in. Hg) | T(°F) | Hours of Op. |
|---|---|---|---|---|---|
| **W-1904** | **87** | **0.0** | **0** | **0** | **0** |
| **W-ETC-2003** | **571,849** | **12.4** | **-.86** | **60** | **759** |
| **W-ETC-2004A** | **201,527** | **4.2** | **-5.33** | **60** | **759** |
| **W-ETC-2004B** | **1,109,580** | **23.1** | **-4.97** | **60** | **759** |
| **SIP-ETC-201** | **12** | **0.0** | **0** | **0** | **0** |
| Total: | **1,883,055** | **39.7** | | | |

4. Comments:
Quarterly wellhead samples collected for idle and operating extraction wells 1/15/14.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: **02-13-2014**

# Self-Monitoring Report
# LLNL Vapor Extraction System 11 (VES11)
# AREA VTFD-ETCS

1. Reporting Period: Business Month **February** Year **2014**

2. Dates (in **bold** and underline ) treatment facility operated

February **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28**

3. Wellfield Data:

| Source | Monthly Volume(cu. ft) | Instantaneous Flow Rate(scfm) | P(in. Hg) | T(°F) | Hours of Op. |
|---|---|---|---|---|---|
| **W-1904** | **0** | **0.0** | **0** | **0** | **0** |
| **W-ETC-2003** | **514,101** | **12.9** | **-.85** | **58** | **672** |
| **W-ETC-2004A** | **169,174** | **4.4** | **-5.61** | **58** | **672** |
| **W-ETC-2004B** | **962,306** | **23.9** | **-5.22** | **58** | **672** |
| **SIP-ETC-201** | **0** | **0.0** | **0** | **0** | **0** |
| Total: | **1,645,581** | **41.3** | | | |

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **03-06-2014**

# Self-Monitoring Report
# LLNL Vapor Extraction System 11 (VES11)
# AREA VTFD-ETCS

1. Reporting Period: Business Month **March** Year **2014**

2. Dates (in **bold** and underline ) treatment facility operated

March **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31**

3. Wellfield Data:

| Source | Monthly Volume(cu. ft) | Instantaneous Flow Rate(scfm) | P(in. Hg) | T(°F) | Hours of Op. |
|---|---|---|---|---|---|
| **W-1904** | **0** | **0.0** | **0** | **0** | **0** |
| **W-ETC-2003** | **570,470** | **13.1** | **-.87** | **63** | **753** |
| **W-ETC-2004A** | **178,256** | **4.1** | **-5.72** | **63** | **753** |
| **W-ETC-2004B** | **1,055,983** | **24.0** | **-5.29** | **63** | **753** |
| **SIP-ETC-201** | **0** | **0.0** | **0** | **0** | **0** |
| Total: | **1,804,709** | **41.2** | | | |

4. Comments:
Vapor flow from extraction wells reduced 3/14/14 to stem the loss of blower operating liquid and optimize facility performance.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **04-07-2014**

# Self-Monitoring Report
# LLNL Portable Treatment Unit 3 (PTU3)
# AREA TFE-E

1. Reporting Period: Business Month **January** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

January **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31**

Total monthly time facility operated (hours): **761**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **01-01-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.0** |
| Effluent Temperature (°C): | **20.3** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-566** | **373,272** | **8.2** |
| **W-1109** | **39,062** | **0.9** |
| **W-1903** | **17,366** | **0.3** |
| **W-1909** | **0** | **0.0** |
| **W-2305** | **0** | **0.0** |
| Total: | **429,700** | **9.4** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **429,700** |

6. Comments:
Facility hours of operation for reporting period have been adjusted due to

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: **03-06-2014**

# Self-Monitoring Report
# LLNL Portable Treatment Unit 3 (PTU3)
# AREA TFE-E

1. Reporting Period: Business Month **February** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

February **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28**

Total monthly time facility operated (hours): **680**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **02-03-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.0** |
| Effluent Temperature (°C): | **19.1** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-566** | **332,033** | **8.3** |
| **W-1109** | **34,531** | **0.9** |
| **W-1903** | **13,591** | **0.3** |
| **W-1909** | **0** | **0.0** |
| **W-2305** | **0** | **0.0** |
| Total: | **380,155** | **9.4** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **380,155** |

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **03-06-2014**

# Self-Monitoring Report
# LLNL Portable Treatment Unit 3 (PTU3)
# AREA TFE-E

1. Reporting Period: Business Month **March** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

March **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31**

Total monthly time facility operated (hours): **756**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **03-03-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.0** |
| Effluent Temperature (°C): | **20.3** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-566** | **364,732** | **8.1** |
| **W-1109** | **37,830** | **0.8** |
| **W-1903** | **14,296** | **0.3** |
| **W-1909** | **0** | **0.0** |
| **W-2305** | **27** | **0.0** |
| Total: | **416,885** | **9.2** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **416,885** |

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: **04-07-2014**

# Self-Monitoring Report
# LLNL GAC Treatment Unit 07 (GTU07)
# AREA TFE-HS

1. Reporting Period: Business Month **January** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

January **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31**

Total monthly time facility operated (hours): **721**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **01-07-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.0** |
| Effluent Temperature (°C): | **16** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-2105** | **1,158** | **1.3** |
| Total: | **1,158** | **1.3** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **1,158** |

6. Comments:

Facility shutdown 1/6/14 at 07:35 and restarted 1/7/14 at 10:33. W-2105 utilizes vacuum-enhanced groundwater extraction combined with cyclic pump operation. Therefore constant flow rate and hours of operation may not correspond.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **02-05-2014**

# Self-Monitoring Report
# LLNL GAC Treatment Unit 07 (GTU07)
# AREA TFE-HS

1. Reporting Period: Business Month **February** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

February **01 02 03 04 05 06** 07 08 **09 10 11 12 13** 14 15
**16 17 18 19 20 21** 22 23 **24 25 26 27 28**

Total monthly time facility operated (hours): **584**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **02-04-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.0** |
| Effluent Temperature (°C): | **8.4** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-2105** | **722** | **1.1** |
| Total: | **722** | **1.1** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **722** |

6. Comments:

GTU07/W-2105 secured 2-3-14 at 07:10 to allow groundwater level to increase prior to collection of monthly samples. Facility was restarted 2-4-14 at 07:30. GTU 07/W-2105 shutdown 2-21-14 at 09:10, and restarted 2-24-14 at 07:25 hrs. W-2105 utilizes vacuum-enhanced groundwater extraction combined with cyclic pump operation. Therefore constant flow rate and hours of operation may not correspond.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **03-06-2014**

# Self-Monitoring Report
# LLNL GAC Treatment Unit 07 (GTU07)
# AREA TFE-HS

1. Reporting Period: Business Month **March** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

March **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31**

Total monthly time facility operated (hours): **726**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **03-04-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.0** |
| Effluent Temperature (°C): | **13.9** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-2105** | **722** | **1.2** |
| Total: | **722** | **1.2** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **722** |

6. Comments:

GTU07/W-2105 secured 3-3-14 at 07:05 to allow groundwater level to increase prior to collection of monthly samples. Facility was restarted 3-4-14 at 07:40. W-2105 utilizes vacuum-enhanced groundwater extraction combined with cyclic pump operation. Therefore constant flow rate and hours of operation may not correspond.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: **04-07-2014**

# Self-Monitoring Report
# LLNL Portable Treatment Unit 9 (PTU9)
# AREA TFE-NW

1. Reporting Period: Business Month **January** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

January **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31**

Total monthly time facility operated (hours): **732**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **01-07-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.0** |
| Effluent Temperature (°C): | **23.4** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1211** | **276,696** | **6.4** |
| **W-1409** | **76,304** | **1.7** |
| Total: | **353,000** | **8.1** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **353,000** |

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **02-03-2014**

# Self-Monitoring Report
# LLNL Portable Treatment Unit 9 (PTU9)
# AREA TFE-NW

1. Reporting Period: Business Month **February** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

February **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28**

Total monthly time facility operated (hours): **681**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **02-11-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.0** |
| Effluent Temperature (°C): | **24.4** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1211** | **254,321** | **6.3** |
| **W-1409** | **71,067** | **1.8** |
| Total: | **325,388** | **8.1** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **325,388** |

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **03-03-2014**

# Self-Monitoring Report
# LLNL Portable Treatment Unit 9 (PTU9)
# AREA TFE-NW

1. Reporting Period: Business Month **March** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

March **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30**

Total monthly time facility operated (hours): **730**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **03-01-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.0** |
| Effluent Temperature (°C): | **24.4** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1211** | **270,965** | **6.2** |
| **W-1409** | **75,464** | **1.7** |
| Total: | **346,429** | **8.0** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **346,429** |

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **04-07-2014**

# Self-Monitoring Report
# LLNL Mini Treatment Unit 04 (MTU04)
# AREA TFE-SE

1. Reporting Period: Business Month **January** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January | **01** | **02** | **03** | **04** | **05** | **06** | **07** | **08** | **09** | **10** | **11** | **12** | **13** | **14** | **15** |
| | **16** | **17** | **18** | **19** | **20** | **21** | **22** | **23** | **24** | **25** | **26** | **27** | **28** | **29** | **30** | **31** |

Total monthly time facility operated (hours): **723**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **01-02-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.0** |
| Effluent Temperature (°C): | **20.7** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-359** | **364,530** | **8.3** |
| Total: | **364,530** | **8.3** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **364,530** |

6. Comments:

Facility found shutdown on 01-12-2014 at 13:47 due to facility low flow interlock. Facility was restarted on 01-13-2014 at 07:15.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **02-05-2014**

# Self-Monitoring Report
# LLNL Mini Treatment Unit 04 (MTU04)
# AREA TFE-SE

1. Reporting Period: Business Month **February** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

February **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28**

Total monthly time facility operated (hours): **666**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **02-03-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.0** |
| Effluent Temperature (°C): | **19.7** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-359** | **336,016** | **8.4** |
| Total: | **336,016** | **8.4** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **336,016** |

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **03-06-2014**

# Self-Monitoring Report
# LLNL Mini Treatment Unit 04 (MTU04)
# AREA TFE-SE

1. Reporting Period: Business Month **March** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

March **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31**

Total monthly time facility operated (hours): **740**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **03-03-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.0** |
| Effluent Temperature (°C): | **20.6** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-359** | **369,909** | **8.3** |
| Total: | **369,909** | **8.3** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **369,909** |

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **04-04-2014**

# Self-Monitoring Report
# LLNL Mini Treatment Unit 03 (MTU03)
# AREA TFE-SW

1. Reporting Period: Business Month **January** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January | **01** | **02** | **03** | **04** | **05** | **06** | **07** | **08** | **09** | **10** | **11** | **12** | **13** | **14** | **15** |
| | **16** | **17** | **18** | **19** | **20** | **21** | **22** | **23** | **24** | 25 | 26 | 27 | **28** | **29** | **30** | **31** |

Total monthly time facility operated (hours): **651**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **01-14-2014** |
| Influent pH: | **7.5** |
| Effluent pH: | **7.5** |
| Effluent Temperature (°C): | **20** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1516** | **419,303** | **10.4** |
| **W-1518** | **16,409** | **0.4** |
| **W-1520** | **30,515** | **0.9** |
| **W-1522** | **11,899** | **0.3** |
| Total: | **478,126** | **12.1** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **478,126** |

6. Comments:

Facility was shutdown on 01-24-2014 at 14:19 in preparation for the Extraction Wellfield Test. Facility was restarted on 01-28-2014 at 09:02 for the Extraction Wellfield Startup Test.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **02-18-2014**

# Self-Monitoring Report
# LLNL Mini Treatment Unit 03 (MTU03)
# AREA TFE-SW

1. Reporting Period: Business Month **February** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

February **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28**

Total monthly time facility operated (hours): **672**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **02-10-2014** |
| Influent pH: | **7.5** |
| Effluent pH: | **7.5** |
| Effluent Temperature (°C): | **21** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1516** | **406,176** | **10.2** |
| **W-1518** | **10,698** | **2.5** |
| **W-1520** | **32,599** | **0.9** |
| **W-1522** | **3,012** | **0.4** |
| Total: | **452,485** | **14.0** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **452,485** |

6. Comments:

The Extraction Wellfield Startup Test was performed during the month. W-1522 was shut down at 10:12 0n 2-21-14 due to the lack of water flow caused by the low water level in the well.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **03-19-2014**

# Self-Monitoring Report
# LLNL Mini Treatment Unit 03 (MTU03)
# AREA TFE-SW

1. Reporting Period: Business Month **March** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

March **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31**

Total monthly time facility operated (hours): **741**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **03-13-2014** |
| Influent pH: | **7.4** |
| Effluent pH: | **7.4** |
| Effluent Temperature (°C): | **20** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1516** | **449,250** | **10.3** |
| **W-1518** | **14,896** | **0.3** |
| **W-1520** | **44,137** | **1.1** |
| **W-1522** | **22,675** | **0.8** |
| Total: | **530,958** | **12.6** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **530,958** |

6. Comments:
NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **04-14-2014**

# Self-Monitoring Report
# LLNL Mini Treatment Unit 05 (MTU05)
# AREA TFE-W

1. Reporting Period: Business Month **January** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | |
| | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | **29** | 30 | 31 |

Total monthly time facility operated (hours): **1**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **01-29-2014** |
| Influent pH: | **7.5** |
| Effluent pH: | **7.5** |
| Effluent Temperature (°C): | **20.9** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-292** | **316** | **6.0** |
| **W-305** | **781** | **14.1** |
| Total: | **1,097** | **20.1** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **1,097** |

6. Comments:

Facility was restarted on 01-29-2014 at 14:31. Facility was shutdown on 01-29-2014 at 15:34. The facility did not run for most of the month during the REVAL (construction) process.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **02-18-2014**

# Self-Monitoring Report
# LLNL Mini Treatment Unit 05 (MTU05)
# AREA TFE-W

1. Reporting Period: Business Month **February** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| February | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | **14** | 15 |
| | 16 | 17 | 18 | **19** | **20** | 21 | 22 | 23 | **24** | **25** | **26** | 27 | 28 | | |

Total monthly time facility operated (hours): **57**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **Not Measured**
Influent pH:
Effluent pH:
Effluent Temperature (°C):

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-292** | **19,547** | **6.0** |
| **W-305** | **42,625** | **14.0** |
| Total: | **62,172** | **20.0** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **62,172** |

6. Comments:

Facility was restarted on 02-14-2014 at 09:05. The facility had been shut down while a new pump for W-292 was being purchased and installed. From 2-14-14 thru 02-20-14 the facility was turned on and off during the Operational Testing Plan. The facility was shut down at 14:18 on 02-20-14 at the conclusion of the test. New software was downloaded the following day. The facility was restarted at 13:19 on 02-24-14 to continue Operational Testing Plan. The facility was started and shutdown for the next few days to test the flow meter totalizers. Facility was shutdown on 02-28-2014 at 10:53 in preparation for the Extraction Wellfield Startup Plan. Influent and effluent samples for EPA 601 (VOC) analysis were not collected during operational testing as the system only ran intermittently during the month. These samples were collected in March when continuous operations resumed.

# Self-Monitoring Report (cont'd)
# LLNL Mini Treatment Unit 05 (MTU05)
# AREA TFE-W

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **03-27-2014**

# Self-Monitoring Report
# LLNL Mini Treatment Unit 05 (MTU05)
# AREA TFE-W

1. Reporting Period: Business Month **March** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

March **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31**

Total monthly time facility operated (hours): **683**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **03-11-2014** |
| Influent pH: | **7.5** |
| Effluent pH: | **7.5** |
| Effluent Temperature (°C): | **19.2** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-292** | **246,592** | **5.9** |
| **W-305** | **404,149** | **13.6** |
| Total: | **650,741** | **19.5** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **650,741** |

6. Comments:

Facility was restarted at 11:45 on 03-03-2014.The facility had been shutdown in preparation for the Extraction Wellfield Startup Test. W-305 shut down several times during the month due to low flow. These shutdowns occurred after the Extraction Wellfield Startup Test had been completed.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **04-14-2014**

# Self-Monitoring Report
# LLNL Vapor Extraction System 16 (VES16)
# AREA VTFE-ELM

1. Reporting Period: Business Month **January** Year **2014**

2. Dates (in **bold** and underline ) treatment facility operated

January **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31**

3. Wellfield Data:

| Source | Monthly Volume(cu. ft) | Instantaneous Flow Rate(scfm) | P(in. Hg) | T(°F) | Hours of Op. |
|---|---|---|---|---|---|
| **W-1903** | **64,064** | **1.7** | **-19.58** | **60** | **738** |
| **W-1909** | **0** | **0.0** | **0** | **0** | **0** |
| **W-2305** | **0** | **0.0** | **0** | **0** | **0** |
| **W-543-001** | **0** | **0.0** | **0** | **0** | **0** |
| **W-543-003** | **1,008,942** | **22.6** | **-1.5** | **60** | **738** |
| **W-543-1908** | **0** | **0.0** | **0** | **0** | **0** |
| Total: | **1,073,006** | **24.3** | | | |

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **02-03-2014**

# Self-Monitoring Report
# LLNL Vapor Extraction System 16 (VES16)
# AREA VTFE-ELM

1. Reporting Period: Business Month **February** Year **2014**

2. Dates (in **bold** and underline ) treatment facility operated

February **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28**

3. Wellfield Data:

| Source | Monthly Volume(cu. ft) | Instantaneous Flow Rate(scfm) | P(in. Hg) | T(°F) | Hours of Op. |
|---|---|---|---|---|---|
| **W-1903** | **51,844** | **1.2** | **-17.9** | **58** | **674** |
| **W-1909** | **0** | **0.0** | **0** | **0** | **0** |
| **W-2305** | **0** | **0.0** | **0** | **0** | **0** |
| **W-543-001** | **4** | **0.0** | **0** | **0** | **0** |
| **W-543-003** | **932,198** | **22.6** | **-1.5** | **58** | **674** |
| **W-543-1908** | **2** | **0.0** | **0** | **0** | **0** |
| Total: | **984,048** | **23.9** | | | |

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: **03-06-2014**

# Self-Monitoring Report
# LLNL Vapor Extraction System 16 (VES16)
# AREA VTFE-ELM

1. Reporting Period: Business Month **March** Year **2014**

2. Dates (in **bold** and underline ) treatment facility operated

March **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31**

3. Wellfield Data:

| Source | Monthly Volume(cu. ft) | Instantaneous Flow Rate(scfm) | P(in. Hg) | T(°F) | Hours of Op. |
|---|---|---|---|---|---|
| **W-1903** | **53,805** | **1.5** | **-18.7** | **72** | **723** |
| **W-1909** | **0** | **0.0** | **0** | **0** | **0** |
| **W-2305** | **0** | **0.0** | **0** | **0** | **0** |
| **W-543-001** | **0** | **0.0** | **0** | **0** | **0** |
| **W-543-003** | **1,046,440** | **23.8** | **-1.5** | **72** | **723** |
| **W-543-1908** | **0** | **0.0** | **0** | **0** | **0** |
| Total: | **1,100,245** | **25.3** | | | |

4. Comments:
Facility was shutdown on 03-03-2014 attributed to system condensate collection tank high level alarm. Facility was restarted on 03-04-2014.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Flores Date: **04-08-2014**

# Self-Monitoring Report
# LLNL Vapor Extraction System 12 (VES12)
# AREA VTFE-HS

1. Reporting Period: Business Month **January** Year **2014**

2. Dates (in **bold** and underline ) treatment facility operated

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January | **01** | **02** | **03** | **04** | **05** | **06** | **07** | **08** | **09** | **10** | **11** | **12** | **13** | **14** | **15** |
| | **16** | **17** | **18** | **19** | **20** | **21** | **22** | **23** | **24** | **25** | **26** | **27** | **28** | **29** | **30** | **31** |

3. Wellfield Data:

| Source | Monthly Volume(cu. ft) | Instantaneous Flow Rate(scfm) | P(in. Hg) | T(°F) | Hours of Op. |
|---|---|---|---|---|---|
| **W-2105** | **60,011** | **1.6** | **-17.69** | **55** | **737** |
| **W-ETS-2008A** | **13** | **0.0** | **0** | **0** | **0** |
| **W-ETS-2008B** | **928,540** | **14.3** | **-17.18** | **55** | **737** |
| **W-ETS-2009** | **29** | **0.0** | **0** | **0** | **0** |
| **W-ETS-2010A** | **7** | **0.0** | **0** | **0** | **0** |
| **W-ETS-2010B** | **11** | **0.0** | **0** | **0** | **0** |
| Total: | **988,611** | **15.9** | | | |

4. Comments:

Facility shutdown on 01-16-2014 at 23:29 hrs due to high condensate tank level. Facility was restarted on 01-17-2014 at 10:15. Quarterly wellhead samples collected for idle and operating extraction wells 1/15/14.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **02-05-2014**

# Self-Monitoring Report
# LLNL Vapor Extraction System 12 (VES12)
# AREA VTFE-HS

1. Reporting Period: Business Month **February** Year **2014**

2. Dates (in **bold** and underline ) treatment facility operated

February **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28**

3. Wellfield Data:

| Source | Monthly Volume(cu. ft) | Instantaneous Flow Rate(scfm) | P(in. Hg) | T(°F) | Hours of Op. |
|---|---|---|---|---|---|
| **W-2105** | **36,780** | **0.9** | **-9.16** | **50** | **678** |
| **W-ETS-2008A** | **0** | **0.0** | **0** | **0** | **0** |
| **W-ETS-2008B** | **1,222,145** | **29.4** | **-7.52** | **50** | **678** |
| **W-ETS-2009** | **0** | **0.0** | **0** | **0** | **0** |
| **W-ETS-2010A** | **0** | **0.0** | **0** | **0** | **0** |
| **W-ETS-2010B** | **0** | **0.0** | **0** | **0** | **0** |
| Total: | **1,258,925** | **30.3** | | | |

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **03-14-2014**

# Self-Monitoring Report
# LLNL Vapor Extraction System 12 (VES12)
# AREA VTFE-HS

1. Reporting Period: Business Month **March** Year **2014**

2. Dates (in **bold** and underline ) treatment facility operated

March **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31**

3. Wellfield Data:

| Source | Monthly Volume(cu. ft) | Instantaneous Flow Rate(scfm) | P(in. Hg) | T(°F) | Hours of Op. |
|---|---|---|---|---|---|
| **W-2105** | **33,602** | **0.8** | **-8.59** | **60** | **750** |
| **W-ETS-2008A** | **0** | **0.0** | **0** | **0** | **0** |
| **W-ETS-2008B** | **1,192,900** | **30.0** | **-7** | **60** | **750** |
| **W-ETS-2009** | **0** | **0.0** | **0** | **0** | **0** |
| **W-ETS-2010A** | **0** | **0.0** | **0** | **0** | **0** |
| **W-ETS-2010B** | **0** | **0.0** | **0** | **0** | **0** |
| Total: | **1,226,502** | **30.8** | | | |

4. Comments:
Reduced vapor flow rate from extraction wells 3-14-14 to mitigate the loss of blower operating liquid attributed to elevated ambient temperatures.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **04-07-2014**

# Self-Monitoring Report
# LLNL GAC Treatment Unit 01 (GTU01)
# AREA TFG-1

1. Reporting Period: Business Month **January** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

January **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31**

Total monthly time facility operated (hours): **745**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **01-08-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.0** |
| Effluent Temperature (°C): | **22.3** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1111** | **231,076** | **5.2** |
| Total: | **231,076** | **5.2** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Seco** | **TFG-ASW** | **231,076** |

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **02-04-2014**

# Land Observation Report date:
# TFG-ASW - Arroyo Seco

1. Reporting Period: Business Month **January** Year **2014**

2. Date compliance sampling performed **01-08-2014**

3. Weather Conditions:

| | |
|---|---|
| Average air tempertaure (°C): | **10.12** |
| 6-day total precipitation (in): | **0.00** |
| Average wind speed/direction (mph): | **3/ SE** |

4. Receiving Data:

| Sample Location | pH | Temperature (C) |
|---|---|---|
| **Receiving Water** | **7.0** | **19.1** |

5. Land Observations, as "Yes" or "No", for reporting month:

| Visual Observations | Effluent | Receiving Water |
|---|---|---|
| Floating and Suspended Materials of Waste Origin | **No** | **No** |
| Odor | **No** | **No** |
| Discoloration and Turbidity | Not Required | **No** |
| Evidence of Beneficial Water Use | Not Required | **N/A** |

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **03-03-2014**

# Self-Monitoring Report
# LLNL GAC Treatment Unit 01 (GTU01)
# AREA TFG-1

1. Reporting Period: Business Month **February** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| February | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 |
| | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | | |

Total monthly time facility operated (hours): **0**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **Not Measured**
Influent pH:
Effluent pH:
Effluent Temperature (°C):

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1111** | **0** | **0.0** |
| Total: | **0** | **0.0** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Seco** | **TFG-ASW** | **0** |

6. Comments:
System secured 1/31/14 through 2/28/14 for REVAL/system up-grades.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **03-03-2014**

# Land Observation Report date:
# TFG-ASW - Arroyo Seco

1. Reporting Period: Business Month **February** Year **2014**

2. Date compliance sampling performed **02-03-2014**

3. Weather Conditions:

| | |
|---|---|
| Average air tempertaure (°C): | **9.93** |
| 6-day total precipitation (in): | **0.36** |
| Average wind speed/direction (mph): | **4/ S** |

4. Receiving Data:

| Sample Location | pH | Temperature (C) |
|---|---|---|
| **Receiving Water** | **N/M** | **N/M** |

5. Land Observations, as "Yes" or "No", for reporting month:

| Visual Observations | Effluent | Receiving Water |
|---|---|---|
| Floating and Suspended Materials of Waste Origin | **No** | **No** |
| Odor | **No** | **No** |
| Discoloration and Turbidity | Not Required | **No** |
| Evidence of Beneficial Water Use | Not Required | **N/A** |

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **04-07-2014**

# Self-Monitoring Report
# LLNL GAC Treatment Unit 01 (GTU01)
# AREA TFG-1

1. Reporting Period: Business Month **March** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| March | 01 | 02 | 03 | 04 | 05 | 06 | **07** | 08 | 09 | 10 | 11 | 12 | 13 | **14** | 15 |
| | 16 | 17 | **18** | **19** | 20 | 21 | 22 | 23 | **24** | **25** | **26** | **27** | **28** | 29 | 30 | 31 |

Total monthly time facility operated (hours): **80**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **03-26-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.0** |
| Effluent Temperature (°C): | **21.4** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1111** | **24,155** | **5.0** |
| Total: | **24,155** | **5.0** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Seco** | **TFG-ASW** | **24,155** |

6. Comments:

System was secured on 1/31/14 for REVAL work and was not operated in the month February 2014. System operations for the month of March 2014 were limited to testing and verification of system REVAL work.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **04-07-2014**

# Land Observation Report date:
# TFG-ASW - Arroyo Seco

1. Reporting Period: Business Month **March** Year **2014**

2. Date compliance sampling performed **03-26-2014**

3. Weather Conditions:

| | |
|---|---|
| Average air tempertaure (°C): | **13.46** |
| 6-day total precipitation (in): | **0.29** |
| Average wind speed/direction (mph): | **4/ SSW** |

4. Receiving Data:

| Sample Location | pH | Temperature (C) |
|---|---|---|
| **Receiving Water** | **N/M** | **N/M** |

5. Land Observations, as "Yes" or "No", for reporting month:

| Visual Observations | Effluent | Receiving Water |
|---|---|---|
| Floating and Suspended Materials of Waste Origin | **No** | **No** |
| Odor | **No** | **No** |
| Discoloration and Turbidity | Not Required | **No** |
| Evidence of Beneficial Water Use | Not Required | **N/A** |

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **04-07-2014**

# Self-Monitoring Report
# LLNL Mini Treatment Unit 02 (MTU02)
# AREA TFG-N

1. Reporting Period: Business Month **January** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

January **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31**

Total monthly time facility operated (hours): **752**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **01-06-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.0** |
| Effluent Temperature (°C): | **22.4** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1806** | **64,457** | **1.5** |
| **W-1807** | **190,700** | **4.4** |
| Total: | **255,157** | **6.0** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **255,157** |

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **02-03-2014**

# Self-Monitoring Report
# LLNL Mini Treatment Unit 02 (MTU02)
# AREA TFG-N

1. Reporting Period: Business Month **February** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

February **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28**

Total monthly time facility operated (hours): **678**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **02-10-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.0** |
| Effluent Temperature (°C): | **22.5** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1806** | **43,721** | **1.1** |
| **W-1807** | **170,722** | **4.1** |
| Total: | **214,443** | **5.2** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **214,443** |

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **03-03-2014**

# Self-Monitoring Report
# LLNL Mini Treatment Unit 02 (MTU02)
# AREA TFG-N

1. Reporting Period: Business Month **March** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

March **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31**

Total monthly time facility operated (hours): **747**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **03-06-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.0** |
| Effluent Temperature (°C): | **22.6** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1806** | **47,133** | **1.1** |
| **W-1807** | **197,461** | **4.4** |
| Total: | **244,594** | **5.5** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **244,594** |

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **04-07-2014**

# Self-Monitoring Report
# LLNL Portable Treatment Unit 5 (PTU5)
# AREA TF406

1. Reporting Period: Business Month **January** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

December **31**
January **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31**

Total monthly time facility operated (hours): **778**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **01-14-2014** |
| Influent pH: | **7.5** |
| Effluent pH: | **7.5** |
| Effluent Temperature (°C): | **21.6** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1309** | **86** | **4.5** |
| **W-1310** | **404,852** | **8.9** |
| Total: | **404,938** | **13.4** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **404,938** |

6. Comments:
NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **02-18-2014**

# Self-Monitoring Report
# LLNL Portable Treatment Unit 5 (PTU5)
# AREA TF406

1. Reporting Period: Business Month **February** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

February **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28**

Total monthly time facility operated (hours): **680**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **02-11-2014** |
| Influent pH: | **7.5** |
| Effluent pH: | **7.5** |
| Effluent Temperature (°C): | **21.5** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1309** | **0** | **0.0** |
| **W-1310** | **356,042** | **8.8** |
| Total: | **356,042** | **8.8** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **356,042** |

6. Comments:
NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **03-19-2014**

# Self-Monitoring Report
# LLNL Portable Treatment Unit 5 (PTU5)
# AREA TF406

1. Reporting Period: Business Month **March** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

March **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31**

Total monthly time facility operated (hours): **751**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **03-12-2014** |
| Influent pH: | **7.5** |
| Effluent pH: | **7.5** |
| Effluent Temperature (°C): | **20.8** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1309** | **0** | **0.0** |
| **W-1310** | **392,817** | **8.8** |
| Total: | **392,817** | **8.8** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **392,817** |

6. Comments:
NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **04-14-2014**

# Self-Monitoring Report
# LLNL GAC Treatment Unit 03 (GTU03)
# AREA TF406-NW

1. Reporting Period: Business Month **January** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January | **01** | **02** | **03** | **04** | **05** | **06** | **07** | **08** | **09** | **10** | **11** | **12** | **13** | **14** | **15** |
| | **16** | **17** | **18** | **19** | **20** | **21** | **22** | **23** | **24** | **25** | **26** | **27** | 28 | 29 | 30 | 31 |

Total monthly time facility operated (hours): **646**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **01-07-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.0** |
| Effluent Temperature (°C): | **23** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1801** | **191,051** | **5.0** |
| Total: | **191,051** | **5.0** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **191,051** |

6. Comments:
System secure from 1/27/14 through 1/31/14 for well and carbon maintenance.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **02-03-2014**

# Self-Monitoring Report
# LLNL GAC Treatment Unit 03 (GTU03)
# AREA TF406-NW

1. Reporting Period: Business Month **February** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

February 01 02 03 **04** **05** **06** **07** 08 09 **10** **11** **12** **13** 14 15
**16** **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28**

Total monthly time facility operated (hours): **501**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **02-11-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.0** |
| Effluent Temperature (°C): | **22** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1801** | **188,585** | **6.6** |
| Total: | **188,585** | **6.6** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **188,585** |

6. Comments:

System secure from 1/27/14 to 2/4/14 for well and system maintenance. System secure from 2/7/14 to 2/10/14 due to high pressure alarm.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **03-03-2014**

# Self-Monitoring Report
# LLNL GAC Treatment Unit 03 (GTU03)
# AREA TF406-NW

1. Reporting Period: Business Month **March** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

March **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31**

Total monthly time facility operated (hours): **708**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **03-06-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.0** |
| Effluent Temperature (°C): | **22.1** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1801** | **258,803** | **6.3** |
| Total: | **258,803** | **6.3** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **258,803** |

6. Comments:
System secured from 3/20/14 to 3/21/14 to change defective carbon vessel.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **04-07-2014**

# Self-Monitoring Report
# LLNL Solar Treatment Unit 09 (STU09)
# AREA TF518-N

1. Reporting Period: Business Month **January** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 |
| | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |

Total monthly time facility operated (hours): **0**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **Not Measured**
Influent pH:
Effluent pH:
Effluent Temperature (°C):

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1410** | **0** | **0.0** |
| Total: | **0** | **0.0** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **0** |

6. Comments:

This treatment facility was shut down on 2-20-08 due to elevated tritium activities in the facility influent. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **01-31-2014**

# Self-Monitoring Report
# LLNL Solar Treatment Unit 09 (STU09)
# AREA TF518-N

1. Reporting Period: Business Month **February** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January | 31 | | | | | | | | | | | | | | |
| February | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 |
| | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | | | |

Total monthly time facility operated (hours): **0**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **Not Measured**
Influent pH:
Effluent pH:
Effluent Temperature (°C):

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1410** | **0** | **0.0** |
| Total: | **0** | **0.0** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **0** |

6. Comments:

This treatment facility was shut down on 2-20-08 due to elevated tritium activities in the facility influent. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Scott Cawyer Date: **02-28-2014**

# Self-Monitoring Report
# LLNL Solar Treatment Unit 09 (STU09)
# AREA TF518-N

1. Reporting Period: Business Month **March** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| February | 28 | | | | | | | | | | | | | | |
| March | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 |
| | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |

Total monthly time facility operated (hours): **0**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **Not Measured**
Influent pH:
Effluent pH:
Effluent Temperature (°C):

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1410** | **0** | **0.0** |
| Total: | **0** | **0.0** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **0** |

6. Comments:

This treatment facility was shut down on 2-20-08 due to elevated tritium activities in the facility influent. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **03-31-2014**

# Self-Monitoring Report
# LLNL Treatment Facility 518-HDTANK (TF518-HDTANK)
# AREA TF518-PZ

1. Reporting Period: Business Month **January** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

January **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31**

Total monthly time facility operated (hours): **737**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **Not Measured**
Influent pH:
Effluent pH:
Effluent Temperature (°C):

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1615** | **78** | **0.0** |
| **W-518-1913** | **0** | **0.0** |
| **W-518-1914** | **0** | **0.0** |
| **W-518-1915** | **17** | **0.0** |
| **SVB-518-201** | **0** | **0.0** |
| **SVB-518-204** | **0** | **0.0** |
| Total: | **95** | **0.0** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **West Perimeter Drainage Channel** | **TFB-R002** | **95** |

6. Comments:
Groundwater from this facility is transferred to and treated at TFB Main.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **02-03-2014**

# Self-Monitoring Report
# LLNL Treatment Facility 518-HDTANK (TF518-HDTANK)
# AREA TF518-PZ

1. Reporting Period: Business Month **February** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

February **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28**

Total monthly time facility operated (hours): **670**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **Not Measured**
Influent pH:
Effluent pH:
Effluent Temperature (°C):

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1615** | **54** | **0.0** |
| **W-518-1913** | **0** | **0.0** |
| **W-518-1914** | **0** | **0.0** |
| **W-518-1915** | **14** | **0.0** |
| **SVB-518-201** | **0** | **0.0** |
| **SVB-518-204** | **0** | **0.0** |
| Total: | **68** | **0.0** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **West Perimeter Drainage Channel** | **TFB-R002** | **67** |

6. Comments:
Groundwater from this facility is transferred to and treated at TFB Main.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **03-06-2014**

# Self-Monitoring Report
# LLNL Treatment Facility 518-HDTANK (TF518-HDTANK)
# AREA TF518-PZ

1. Reporting Period: Business Month **March** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

March **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31**

Total monthly time facility operated (hours): **747**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **Not Measured**
Influent pH:
Effluent pH:
Effluent Temperature (°C):

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1615** | **53** | **0.0** |
| **W-518-1913** | **0** | **0.0** |
| **W-518-1914** | **0** | **0.0** |
| **W-518-1915** | **12** | **0.0** |
| **SVB-518-201** | **0** | **0.0** |
| **SVB-518-204** | **0** | **0.0** |
| Total: | **65** | **0.0** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **West Perimeter Drainage Channel** | **TFB-R002** | **65** |

6. Comments:
Groundwater from this facility is transferred to and treated at TFB Main.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: **04-07-2014**

# Self-Monitoring Report
# LLNL Catalytic Reductive Dehalogenation 1 (CRD1)
# AREA TF5475-1

1. Reporting Period: Business Month **January** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 |
| | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |

Total monthly time facility operated (hours): **0**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **Not Measured**
Influent pH:
Effluent pH:
Effluent Temperature (°C):

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1302-2** | **0** | **0.0** |
| Total: | **0** | **0.0** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **CRD-1 injection** | **W-1302-1** | **0** |

6. Comments:

The treatment facility was shut down on 7/27/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **02-18-2014**

# Self-Monitoring Report
# LLNL Catalytic Reductive Dehalogenation 1 (CRD1)
# AREA TF5475-1

1. Reporting Period: Business Month **February** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| February | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 |
| | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | | |

Total monthly time facility operated (hours): **0**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **Not Measured**
Influent pH:
Effluent pH:
Effluent Temperature (°C):

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1302-2** | **0** | **0.0** |
| Total: | **0** | **0.0** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **CRD-1 injection** | **W-1302-1** | **0** |

6. Comments:
The treatment facility was shut down on 7/27/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **03-19-2014**

# Self-Monitoring Report
# LLNL Catalytic Reductive Dehalogenation 1 (CRD1)
# AREA TF5475-1

1. Reporting Period: Business Month **March** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| March | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 |
| | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |

Total monthly time facility operated (hours): **0**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **Not Measured**
Influent pH:
Effluent pH:
Effluent Temperature (°C):

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1302-2** | **0** | **0.0** |
| Total: | **0** | **0.0** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **CRD-1 injection** | **W-1302-1** | **0** |

6. Comments:

The treatment facility was shut down on 7/27/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **04-15-2014**

# Self-Monitoring Report
# LLNL GAC Treatment Unit 09 (GTU09)
# AREA TF5475-2

1. Reporting Period: Business Month **January** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January | **01** | **02** | **03** | **04** | **05** | **06** | **07** | **08** | **09** | **10** | **11** | **12** | **13** | **14** | **15** |
| | **16** | **17** | **18** | **19** | **20** | **21** | **22** | **23** | **24** | **25** | **26** | **27** | **28** | **29** | **30** |

Total monthly time facility operated (hours): **720**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **01-02-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.0** |
| Effluent Temperature (°C): | **17.9** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1108** | **62,729** | **1.4** |
| **W-1415** | **0** | **0.0** |
| Total: | **62,729** | **1.4** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **62,729** |

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **02-02-2014**

# Self-Monitoring Report
# LLNL GAC Treatment Unit 09 (GTU09)
# AREA TF5475-2

1. Reporting Period: Business Month **February** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January | **31** | | | | | | | | | | | | | |
| February | **01** | **02** | **03** | **04** | **05** | **06** | **07** | **08** | **09** | **10** | **11** | **12** | **13** | **14** | **15** |
| | **16** | **17** | **18** | **19** | **20** | **21** | **22** | **23** | **24** | **25** | **26** | **27** | | | |

Total monthly time facility operated (hours): **672**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **02-05-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.0** |
| Effluent Temperature (°C): | **18.6** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1108** | **48,531** | **1.7** |
| **W-1415** | **0** | **0.0** |
| Total: | **48,531** | **1.7** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **48,531** |

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **03-06-2014**

# Self-Monitoring Report
# LLNL GAC Treatment Unit 09 (GTU09)
# AREA TF5475-2

1. Reporting Period: Business Month **March** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| February | **28** | | | | | | | | | | | | | |
| March | **01** | **02** | **03** | **04** | **05** | **06** | **07** | **08** | **09** | **10** | **11** | **12** | **13** | **14** | **15** |
| | **16** | **17** | **18** | **19** | **20** | **21** | **22** | **23** | **24** | **25** | **26** | **27** | **28** | **29** | **30** |

Total monthly time facility operated (hours): **755**

3. Monthly Compliance Data:

| | |
|---|---|
| Date compliance sampling performed (m/d/y): | **03-05-2014** |
| Influent pH: | **7.0** |
| Effluent pH: | **7.0** |
| Effluent Temperature (°C): | **18.1** |

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1108** | **38,776** | **0.9** |
| **W-1415** | **0** | **0.0** |
| Total: | **38,776** | **0.9** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **Arroyo Las Positas** | **TFC-R003** | **38,776** |

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **04-11-2014**

# Self-Monitoring Report
# LLNL Catalytic Reductive Dehalogenation 2 (CRD2)
# AREA TF5475-3

1. Reporting Period: Business Month **January** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 |
| | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |

Total monthly time facility operated (hours): **0**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **Not Measured**
Influent pH:
Effluent pH:
Effluent Temperature (°C):

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1604** | **0** | **0.0** |
| **W-1605** | **0** | **0.0** |
| **W-1608** | **0** | **0.0** |
| **W-1609** | **0** | **0.0** |
| Total: | **0** | **0.0** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **CRD-2 injection** | **W-1610** | **0** |

6. Comments:
The treatment facility was shut down on 8/31/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **02-18-2014**

# Self-Monitoring Report
# LLNL Catalytic Reductive Dehalogenation 2 (CRD2)
# AREA TF5475-3

1. Reporting Period: Business Month **February** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| February | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 |
| | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | | |

Total monthly time facility operated (hours): **0**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **Not Measured**
Influent pH:
Effluent pH:
Effluent Temperature (°C):

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1604** | **0** | **0.0** |
| **W-1605** | **0** | **0.0** |
| **W-1608** | **0** | **0.0** |
| **W-1609** | **0** | **0.0** |
| Total: | **0** | **0.0** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **CRD-2 injection** | **W-1610** | **0** |

6. Comments:

The treatment facility was shut down on 8/31/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **03-19-2014**

# Self-Monitoring Report
# LLNL Catalytic Reductive Dehalogenation 2 (CRD2)
# AREA TF5475-3

1. Reporting Period: Business Month **March** Year **2014**

2. Dates (in **bold** and underline ) treated ground water was discharged

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| March | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | |
| | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |

Total monthly time facility operated (hours): **0**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **Not Measured**
Influent pH:
Effluent pH:
Effluent Temperature (°C):

4. Wellfield Data:

| Source | Monthly Volume(gal) | Instantaneous Flow Rate(gpm) |
|---|---|---|
| **W-1604** | **0** | **0.0** |
| **W-1605** | **0** | **0.0** |
| **W-1608** | **0** | **0.0** |
| **W-1609** | **0** | **0.0** |
| Total: | **0** | **0.0** |

5. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **CRD-2 injection** | **W-1610** | **0** |

6. Comments:
The treatment facility was shut down on 8/31/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **04-15-2014**

# Self-Monitoring Report
# LLNL Vapor Extraction System 08 (VES08)
# AREA VTF406-HS

1. Reporting Period: Business Month **January** Year **2014**

2. Dates (in **bold** and underline ) treatment facility operated

January **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31**

3. Wellfield Data:

| Source | Monthly Volume(cu. ft) | Instantaneous Flow Rate(scfm) | P(in. Hg) | T(°F) | Hours of Op. |
|---|---|---|---|---|---|
| **W-217** | **581,205** | **13.2** | **-2.69** | **62** | **740** |
| **W-514-2007A** | **0** | **0.0** | **0** | **0** | **0** |
| **W-514-2007B** | **442,245** | **10.1** | **-2.94** | **62** | **740** |
| Total: | **1,023,450** | **23.3** | | | |

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **02-06-2014**

# Self-Monitoring Report
# LLNL Vapor Extraction System 08 (VES08)
# AREA VTF406-HS

1. Reporting Period: Business Month **February** Year **2014**

2. Dates (in **bold** and underline ) treatment facility operated

February **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28**

3. Wellfield Data:

| Source | Monthly Volume(cu. ft) | Instantaneous Flow Rate(scfm) | P(in. Hg) | T(°F) | Hours of Op. |
|---|---|---|---|---|---|
| **W-217** | **512,860** | **13.1** | **-2.68** | **59** | **673** |
| **W-514-2007A** | **0** | **0.0** | **0** | **0** | **0** |
| **W-514-2007B** | **394,635** | **9.9** | **-2.93** | **59** | **673** |
| Total: | **907,495** | **23.1** | | | |

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: **03-06-2014**

# Self-Monitoring Report
# LLNL Vapor Extraction System 08 (VES08)
# AREA VTF406-HS

1. Reporting Period: Business Month **March** Year **2014**

2. Dates (in **bold** and underline ) treatment facility operated

March **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31**

3. Wellfield Data:

| Source | Monthly Volume(cu. ft) | Instantaneous Flow Rate(scfm) | P(in. Hg) | T(°F) | Hours of Op. |
|---|---|---|---|---|---|
| **W-217** | **582,558** | **12.8** | **-2.58** | **64** | **740** |
| **W-514-2007A** | **0** | **0.0** | **0** | **0** | **0** |
| **W-514-2007B** | **432,765** | **9.8** | **-2.82** | **64** | **740** |
| Total: | **1,015,323** | **22.5** | | | |

4. Comments:

End month volumes for extraction wells were calculated from individual flow measurements, and not derived from facility totalizer values. Facility and wellfield monthly hours of operation entered on this report were acquired from data logged on TFRT due to malfunction of facility clock.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **04-08-2014**

# Self-Monitoring Report
# LLNL Vapor Extraction System 05 (VES05)
# AREA VTF511

1. Reporting Period: Business Month **January** Year **2014**

2. Dates (in **bold** and underline ) treatment facility operated

January **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31**

3. Wellfield Data:

| Source | Monthly Volume(cu. ft) | Instantaneous Flow Rate(scfm) | P(in. Hg) | T(°F) | Hours of Op. |
|---|---|---|---|---|---|
| **W-2204** | **0** | **0.0** | **0** | **0** | **0** |
| **W-2205** | **0** | **0.0** | **0** | **0** | **0** |
| **W-2206** | **0** | **0.0** | **0** | **0** | **0** |
| **W-2207A** | **0** | **0.0** | **0** | **0** | **0** |
| **W-2207B** | **253** | **0.0** | **0** | **54** | **739** |
| **W-2208A** | **0** | **0.0** | **0** | **0** | **0** |
| **W-2208B** | **192,536** | **4.5** | **-4** | **54** | **739** |
| Total: | **192,789** | **4.5** | | | |

4. Comments:

Extraction well end month cumulative volumes entered for this reporting period may not be accurate due to condensate restricting vapor flow in underground piping, and intermittently disrupting operation of facility instrumentation.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **02-13-2014**

# Self-Monitoring Report
# LLNL Vapor Extraction System 05 (VES05)
# AREA VTF511

1. Reporting Period: Business Month **February** Year **2014**

2. Dates (in **bold** and underline ) treatment facility operated

February **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15**
**16 17 18 19 20 21 22 23 24 25 26 27** 28

3. Wellfield Data:

| Source | Monthly Volume(cu. ft) | Instantaneous Flow Rate(scfm) | P(in. Hg) | T(°F) | Hours of Op. |
|---|---|---|---|---|---|
| **W-2204** | **0** | **0.0** | **0** | **0** | **0** |
| **W-2205** | **0** | **0.0** | **0** | **0** | **0** |
| **W-2206** | **0** | **0.0** | **0** | **0** | **0** |
| **W-2207A** | **0** | **0.0** | **0** | **0** | **0** |
| **W-2207B** | **15,203** | **0.0** | **0** | **0** | **637** |
| **W-2208A** | **0** | **0.0** | **0** | **0** | **0** |
| **W-2208B** | **186,276** | **4.2** | **-4.2** | **52** | **637** |
| Total: | **201,479** | **4.2** | | | |

4. Comments:

Facility was shutdown on 02-12-2014 at 11:00 for maintenance, and restarted 02-12-2014 at 13:25. Facility was shutdown on 02-19-2014 at 09:40, restarted 02-19-2014 at 11:05. Extraction well end month cumulative volumes entered for this reporting period may not be accurate due to condensate restricting vapor flow in underground piping, and intermittently disrupting operation of facility instrumentation. VES 14 activated 2/19/14.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **03-31-2014**

# Self-Monitoring Report
# LLNL Vapor Extraction System 05 (VES05)
# AREA VTF511

1. Reporting Period: Business Month **March** Year **2014**

2. Dates (in **bold** and underline ) treatment facility operated

March **01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31**

3. Wellfield Data:

| Source | Monthly Volume(cu. ft) | Instantaneous Flow Rate(scfm) | P(in. Hg) | T(°F) | Hours of Op. |
|---|---|---|---|---|---|
| **W-2204** | **0** | **0.0** | **0** | **0** | **0** |
| **W-2205** | **0** | **0.0** | **0** | **0** | **0** |
| **W-2206** | **0** | **0.0** | **0** | **0** | **0** |
| **W-2207A** | **0** | **0.0** | **0** | **0** | **0** |
| **W-2207B** | **250,782** | **5.3** | **-4.3** | **64** | **618** |
| **W-2208A** | **0** | **0.0** | **0** | **0** | **0** |
| **W-2208B** | **294,993** | **8.8** | **-3.8** | **64** | **618** |
| Total: | **545,775** | **14.1** | | | |

4. Comments:

Facility was shutdown 02-27-2014 for carbon filter maintenance. Facility was restarted on 03-05-2014. Extraction well end month cumulative volumes entered for this reporting period may not be accurate due to condensate restricting vapor flow in underground piping, and intermittently disrupting operation of facility instrumentation.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **04-07-2014**

# Self-Monitoring Report
# LLNL Vapor Extraction System 19 (VES19)
# AREA VTF518-PZ

1. Reporting Period: Business Month **January Week: 1** Year **2014**

2. Dates (in **bold** and underline ) treatment facility operated

December **28** **29** **30** **31**
January **01** **02** **03**

3. Wellfield Data:

| Source | Weekly Volume(cu. ft) | Instantaneous Flow Rate(scfm) | P(in. Hg) | T(°F) | Hours of Op. |
|---|---|---|---|---|---|
| **W-1615** | **43,292** | **4.3** | **-17.7** | **40** | **168** |
| **W-518-1913** | **0** | **0.0** | **0** | **0** | **0** |
| **W-518-1914** | **0** | **0.0** | **0** | **0** | **0** |
| **W-518-1915** | **14,095** | **1.4** | **-20** | **40** | **168** |
| **SVB-518-201** | **0** | **0.0** | **0** | **0** | **0** |
| **SVB-518-204** | **0** | **0.0** | **0** | **0** | **0** |
| Total: | **57,387** | **5.7** | | | |

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: **02-03-2014**

# Self-Monitoring Report
# LLNL Vapor Extraction System 19 (VES19)
# AREA VTF518-PZ

1. Reporting Period: Business Month **January Week: 2** Year **2014**

2. Dates (in **bold** and underline ) treatment facility operated

January **04 05 06 07 08 09 10**

3. Wellfield Data:

| Source | Weekly Volume(cu. ft) | Instantaneous Flow Rate(scfm) | P(in. Hg) | T(°F) | Hours of Op. |
|---|---|---|---|---|---|
| **W-1615** | **44,099** | **4.4** | **-17** | **38** | **167** |
| **W-518-1913** | **0** | **0.0** | **0** | **0** | **0** |
| **W-518-1914** | **0** | **0.0** | **0** | **0** | **0** |
| **W-518-1915** | **14,031** | **1.4** | **-20** | **38** | **167** |
| **SVB-518-201** | **0** | **0.0** | **0** | **0** | **0** |
| **SVB-518-204** | **0** | **0.0** | **0** | **0** | **0** |
| Total: | **58,130** | **5.8** | | | |

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: **02-03-2014**

# Self-Monitoring Report
# LLNL Vapor Extraction System 19 (VES19)
# AREA VTF518-PZ

1. Reporting Period: Business Month **January Week: 3** Year **2014**

2. Dates (in **bold** and underline ) treatment facility operated

January **11 12 13 14 15 16 17**

3. Wellfield Data:

| Source | Weekly Volume(cu. ft) | Instantaneous Flow Rate(scfm) | P(in. Hg) | T(°F) | Hours of Op. |
|---|---|---|---|---|---|
| **W-1615** | **43,215** | **4.2** | **-17.5** | **58** | **171** |
| **W-518-1913** | **0** | **0.0** | **0** | **0** | **0** |
| **W-518-1914** | **0** | **0.0** | **0** | **0** | **0** |
| **W-518-1915** | **14,405** | **1.4** | **-20.2** | **58** | **171** |
| **SVB-518-201** | **0** | **0.0** | **0** | **0** | **0** |
| **SVB-518-204** | **0** | **0.0** | **0** | **0** | **0** |
| Total: | **57,620** | **5.6** | | | |

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **02-03-2014**

# Self-Monitoring Report
# LLNL Vapor Extraction System 19 (VES19)
# AREA VTF518-PZ

1. Reporting Period: Business Month **January Week: 4** Year **2014**

2. Dates (in **bold** and underline ) treatment facility operated

January **18 19 20 21 22 23 24**

3. Wellfield Data:

| Source | Weekly Volume(cu. ft) | Instantaneous Flow Rate(scfm) | P(in. Hg) | T(°F) | Hours of Op. |
|---|---|---|---|---|---|
| **W-1615** | **40,607** | **4.1** | **-17.5** | **46** | **165** |
| **W-518-1913** | **0** | **0.0** | **0** | **0** | **0** |
| **W-518-1914** | **0** | **0.0** | **0** | **0** | **0** |
| **W-518-1915** | **12,875** | **1.3** | **-20** | **46** | **165** |
| **SVB-518-201** | **0** | **0.0** | **0** | **0** | **0** |
| **SVB-518-204** | **0** | **0.0** | **0** | **0** | **0** |
| Total: | **53,482** | **5.4** | | | |

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomes Date: **02-03-2014**

# Self-Monitoring Report
# LLNL Vapor Extraction System 19 (VES19)
# AREA VTF518-PZ

1. Reporting Period: Business Month **January Week: 5** Year **2014**

2. Dates (in **bold** and underline ) treatment facility operated

January **25 26 27 28 29 30 31**

3. Wellfield Data:

| Source | Weekly Volume(cu. ft) | Instantaneous Flow Rate(scfm) | P(in. Hg) | T(°F) | Hours of Op. |
|---|---|---|---|---|---|
| **W-1615** | **41,525** | **4.1** | **-17.5** | **46** | **169** |
| **W-518-1913** | **0** | **0.0** | **0** | **0** | **0** |
| **W-518-1914** | **0** | **0.0** | **0** | **0** | **0** |
| **W-518-1915** | **14,179** | **1.4** | **-20** | **46** | **169** |
| **SVB-518-201** | **0** | **0.0** | **0** | **0** | **0** |
| **SVB-518-204** | **0** | **0.0** | **0** | **0** | **0** |
| Total: | **55,704** | **5.5** | | | |

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: **02-03-2014**

# Self-Monitoring Report
# LLNL Vapor Extraction System 19 (VES19)
# AREA VTF518-PZ

1. Reporting Period: Business Month **February Week: 1** Year **2014**

2. Dates (in **bold** and underline ) treatment facility operated

February **01 02 03 04 05 06 07**

3. Wellfield Data:

| Source | Weekly Volume(cu. ft) | Instantaneous Flow Rate(scfm) | P(in. Hg) | T(°F) | Hours of Op. |
|---|---|---|---|---|---|
| **W-1615** | **41,476** | **4.1** | **-17.5** | **49** | **169** |
| **W-518-1913** | **0** | **0.0** | **0** | **0** | **0** |
| **W-518-1914** | **0** | **0.0** | **0** | **0** | **0** |
| **W-518-1915** | **15,174** | **1.5** | **-19.8** | **49** | **169** |
| **SVB-518-201** | **0** | **0.0** | **0** | **0** | **0** |
| **SVB-518-204** | **0** | **0.0** | **0** | **0** | **0** |
| Total: | **56,650** | **5.6** | | | |

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **03-06-2014**

# Self-Monitoring Report
# LLNL Vapor Extraction System 19 (VES19)
# AREA VTF518-PZ

1. Reporting Period: Business Month **February Week: 2** Year **2014**

2. Dates (in **bold** and underline ) treatment facility operated

February **08 09 10 11 12 13 14**

3. Wellfield Data:

| Source | Weekly Volume(cu. ft) | Instantaneous Flow Rate(scfm) | P(in. Hg) | T(°F) | Hours of Op. |
|---|---|---|---|---|---|
| **W-1615** | **40,959** | **4.1** | **-17.5** | **54** | **166** |
| **W-518-1913** | **0** | **0.0** | **0** | **0** | **0** |
| **W-518-1914** | **0** | **0.0** | **0** | **0** | **0** |
| **W-518-1915** | **14,985** | **1.5** | **-19.5** | **54** | **166** |
| **SVB-518-201** | **0** | **0.0** | **0** | **0** | **0** |
| **SVB-518-204** | **0** | **0.0** | **0** | **0** | **0** |
| Total: | **55,944** | **5.6** | | | |

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: **03-06-2014**

# Self-Monitoring Report
# LLNL Vapor Extraction System 19 (VES19)
# AREA VTF518-PZ

1. Reporting Period: Business Month **February Week: 3** Year **2014**

2. Dates (in **bold** and underline ) treatment facility operated

February **15 16 17 18 19 20 21**

3. Wellfield Data:

| Source | Weekly Volume(cu. ft) | Instantaneous Flow Rate(scfm) | P(in. Hg) | T(°F) | Hours of Op. |
|---|---|---|---|---|---|
| **W-1615** | **42,424** | **4.2** | **-17** | **48** | **168** |
| **W-518-1913** | **0** | **0.0** | **0** | **0** | **0** |
| **W-518-1914** | **0** | **0.0** | **0** | **0** | **0** |
| **W-518-1915** | **15,151** | **1.5** | **-19.5** | **48** | **168** |
| **SVB-518-201** | **0** | **0.0** | **0** | **0** | **0** |
| **SVB-518-204** | **0** | **0.0** | **0** | **0** | **0** |
| Total: | **57,575** | **5.7** | | | |

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **03-06-2014**

# Self-Monitoring Report
# LLNL Vapor Extraction System 19 (VES19)
# AREA VTF518-PZ

1. Reporting Period: Business Month **February Week: 4** Year **2014**

2. Dates (in **bold** and underline ) treatment facility operated

February **22 23 24 25 26 27 28**

3. Wellfield Data:

| Source | Weekly Volume(cu. ft) | Instantaneous Flow Rate(scfm) | P(in. Hg) | T(°F) | Hours of Op. |
|---|---|---|---|---|---|
| **W-1615** | **39,055** | **3.9** | **-17.2** | **60** | **167** |
| **W-518-1913** | **18** | **1.1** | **-3.5** | **40** | **0** |
| **W-518-1914** | **8** | **1.7** | **-.5** | **40** | **0** |
| **W-518-1915** | **15,021** | **1.5** | **-19.5** | **60** | **167** |
| **SVB-518-201** | **34** | **1.7** | **-.5** | **40** | **0** |
| **SVB-518-204** | **19** | **1.2** | **-.5** | **40** | **0** |
| Total: | **54,155** | **11.1** | | | |

4. Comments:

Quarterly vapor samples collected from idle and operating extraction wells 2-25-14.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: **03-14-2014**

# Self-Monitoring Report
# LLNL Vapor Extraction System 19 (VES19)
# AREA VTF518-PZ

1. Reporting Period: Business Month **March Week: 1** Year **2014**

2. Dates (in **bold** and underline ) treatment facility operated

March **01 02 03 04 05 06 07**

3. Wellfield Data:

| Source | Weekly Volume(cu. ft) | Instantaneous Flow Rate(scfm) | P(in. Hg) | T(°F) | Hours of Op. |
|---|---|---|---|---|---|
| **W-1615** | **41,458** | **4.1** | **-17.2** | **48** | **169** |
| **W-518-1913** | **0** | **0.0** | **0** | **0** | **0** |
| **W-518-1914** | **0** | **0.0** | **0** | **0** | **0** |
| **W-518-1915** | **15,168** | **1.5** | **-19.5** | **48** | **169** |
| **SVB-518-201** | **0** | **0.0** | **0** | **0** | **0** |
| **SVB-518-204** | **0** | **0.0** | **0** | **0** | **0** |
| Total: | **56,626** | **5.6** | | | |

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **04-04-2014**

# Self-Monitoring Report
# LLNL Vapor Extraction System 19 (VES19)
# AREA VTF518-PZ

1. Reporting Period: Business Month **March Week: 2** Year **2014**

2. Dates (in **bold** and underline ) treatment facility operated

March **08 09 10 11 12 13 14**

3. Wellfield Data:

| Source | Weekly Volume(cu. ft) | Instantaneous Flow Rate(scfm) | P(in. Hg) | T(°F) | Hours of Op. |
|---|---|---|---|---|---|
| **W-1615** | **40,989** | **4.1** | **-17.3** | **40** | **167** |
| **W-518-1913** | **0** | **0.0** | **0** | **0** | **0** |
| **W-518-1914** | **0** | **0.0** | **0** | **0** | **0** |
| **W-518-1915** | **15,996** | **1.6** | **-19.5** | **40** | **167** |
| **SVB-518-201** | **0** | **0.0** | **0** | **0** | **0** |
| **SVB-518-204** | **0** | **0.0** | **0** | **0** | **0** |
| Total: | **56,985** | **5.7** | | | |

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **04-04-2014**

# Self-Monitoring Report
# LLNL Vapor Extraction System 19 (VES19)
# AREA VTF518-PZ

1. Reporting Period: Business Month **March Week: 3** Year **2014**

2. Dates (in **bold** and underline ) treatment facility operated

March **15 16 17 18 19 20 21**

3. Wellfield Data:

| Source | Weekly Volume(cu. ft) | Instantaneous Flow Rate(scfm) | P(in. Hg) | T(°F) | Hours of Op. |
|---|---|---|---|---|---|
| **W-1615** | **41,426** | **4.1** | **-17.3** | **46** | **168** |
| **W-518-1913** | **0** | **0.0** | **0** | **0** | **0** |
| **W-518-1914** | **0** | **0.0** | **0** | **0** | **0** |
| **W-518-1915** | **16,166** | **1.6** | **-19.7** | **46** | **168** |
| **SVB-518-201** | **0** | **0.0** | **0** | **0** | **0** |
| **SVB-518-204** | **0** | **0.0** | **0** | **0** | **0** |
| Total: | **57,592** | **5.7** | | | |

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **04-04-2014**

# Self-Monitoring Report
# LLNL Vapor Extraction System 19 (VES19)
# AREA VTF518-PZ

1. Reporting Period: Business Month **March Week: 4** Year **2014**

2. Dates (in **bold** and underline ) treatment facility operated

March **22 23 24 25 26 27 28**

3. Wellfield Data:

| Source | Weekly Volume(cu. ft) | Instantaneous Flow Rate(scfm) | P(in. Hg) | T(°F) | Hours of Op. |
|---|---|---|---|---|---|
| **W-1615** | **41,918** | **4.1** | **-17** | **60** | **170** |
| **W-518-1913** | **0** | **0.0** | **0** | **0** | **0** |
| **W-518-1914** | **0** | **0.0** | **0** | **0** | **0** |
| **W-518-1915** | **16,358** | **1.6** | **-19.5** | **60** | **170** |
| **SVB-518-201** | **0** | **0.0** | **0** | **0** | **0** |
| **SVB-518-204** | **0** | **0.0** | **0** | **0** | **0** |
| Total: | **58,276** | **5.7** | | | |

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: **04-04-2014**

# Self-Monitoring Report
# LLNL Vapor Extraction System 01 (VES01)
# AREA VTF5475

1. Reporting Period: Business Month **January** Year **2014**

2. Dates (in **bold** and underline ) treatment facility operated

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 |
| | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |

3. Wellfield Data:

| Source | Monthly Volume(cu. ft) | Instantaneous Flow Rate(scfm) | P(in. Hg) | T(°F) | Hours of Op. |
|---|---|---|---|---|---|
| **W-1605** | **0** | **0.0** | **0** | **0** | **0** |
| **W-1608** | **0** | **0.0** | **0** | **0** | **0** |
| **W-2211** | **0** | **0.0** | **0** | **0** | **0** |
| **W-2212** | **0** | **0.0** | **0** | **0** | **0** |
| **W-ETS-507** | **0** | **0.0** | **0** | **0** | **0** |
| **W-2302** | **0** | **0.0** | **0** | **0** | **0** |
| **W-2303** | **0** | **0.0** | **0** | **0** | **0** |
| **SVI-ETS-504** | **0** | **0.0** | **0** | **0** | **0** |
| Total: | **0** | **0.0** | | | |

4. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **VTF5475 Vapor Injection Well** | **SVI-ETS-505** | **0** |

5. Comments:

This treatment facility was shut down on 10-12-07 due to a FY2008 funding reduction. The facility will be restarted once a solution for mixed waste generation is implemented.

6. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **02-18-2014**

# Self-Monitoring Report
# LLNL Vapor Extraction System 01 (VES01)
# AREA VTF5475

1. Reporting Period: Business Month **February** Year **2014**

2. Dates (in **bold** and underline ) treatment facility operated

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| February | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 |
| | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | | |

3. Wellfield Data:

| Source | Monthly Volume(cu. ft) | Instantaneous Flow Rate(scfm) | P(in. Hg) | T(°F) | Hours of Op. |
|---|---|---|---|---|---|
| **W-1605** | **0** | **0.0** | **0** | **0** | **0** |
| **W-1608** | **0** | **0.0** | **0** | **0** | **0** |
| **W-2211** | **0** | **0.0** | **0** | **0** | **0** |
| **W-2212** | **0** | **0.0** | **0** | **0** | **0** |
| **W-ETS-507** | **0** | **0.0** | **0** | **0** | **0** |
| **W-2302** | **0** | **0.0** | **0** | **0** | **0** |
| **W-2303** | **0** | **0.0** | **0** | **0** | **0** |
| **SVI-ETS-504** | **0** | **0.0** | **0** | **0** | **0** |
| Total: | **0** | **0.0** | | | |

4. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **VTF5475 Vapor Injection Well** | **SVI-ETS-505** | **0** |

5. Comments:

This treatment facility was shut down on 10-12-07 due to a FY2008 funding reduction. The facility will be restarted once a solution for mixed waste generation is implemented.

6. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **03-19-2014**

# Self-Monitoring Report
# LLNL Vapor Extraction System 01 (VES01)
# AREA VTF5475

1. Reporting Period: Business Month **March** Year **2014**

2. Dates (in **bold** and underline ) treatment facility operated

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| March | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 |
| | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |

3. Wellfield Data:

| Source | Monthly Volume(cu. ft) | Instantaneous Flow Rate(scfm) | P(in. Hg) | T(°F) | Hours of Op. |
|---|---|---|---|---|---|
| **W-1605** | **0** | **0.0** | **0** | **0** | **0** |
| **W-1608** | **0** | **0.0** | **0** | **0** | **0** |
| **W-2211** | **0** | **0.0** | **0** | **0** | **0** |
| **W-2212** | **0** | **0.0** | **0** | **0** | **0** |
| **W-ETS-507** | **0** | **0.0** | **0** | **0** | **0** |
| **W-2302** | **0** | **0.0** | **0** | **0** | **0** |
| **W-2303** | **0** | **0.0** | **0** | **0** | **0** |
| **SVI-ETS-504** | **0** | **0.0** | **0** | **0** | **0** |
| Total: | **0** | **0.0** | | | |

4. Discharge Information:

| Discharge Location | Receiving Water Station | Volume |
|---|---|---|
| **VTF5475 Vapor Injection Well** | **SVI-ETS-505** | **0** |

5. Comments:

This treatment facility was shut down on 10-12-07 due to a FY2008 funding reduction. The facility will be restarted once a solution for mixed waste generation is implemented.

6. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____ Date: **04-15-2014**

# Attachment C

# Figures

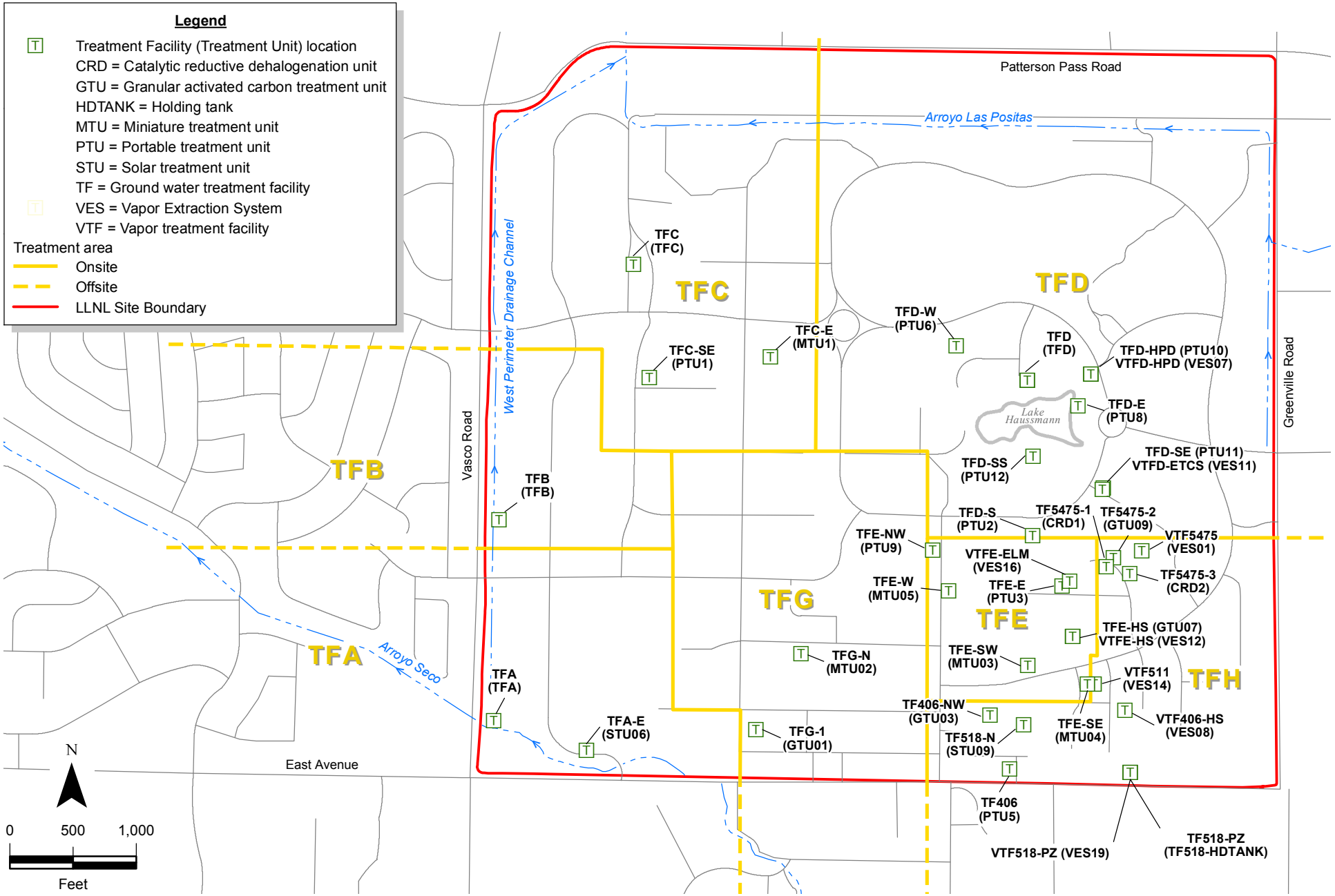


**Figure 1. Livermore Site treatment areas and treatment facility locations.**

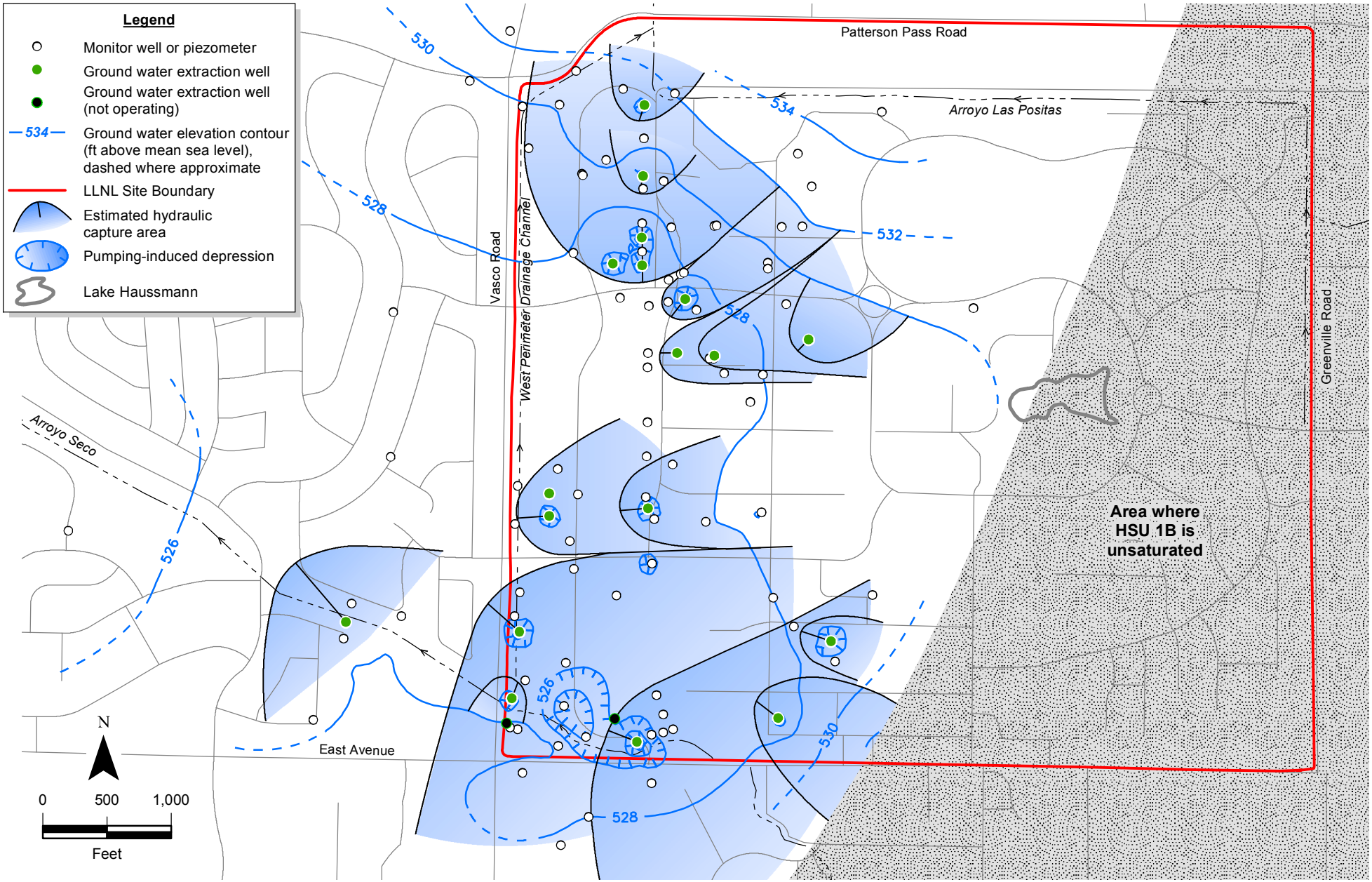


**Figure 2. Ground water elevation contour map based on 110 wells completed within HSU-1B showing estimated hydraulic capture areas, LLNL and vicinity, first quarter 2014.**

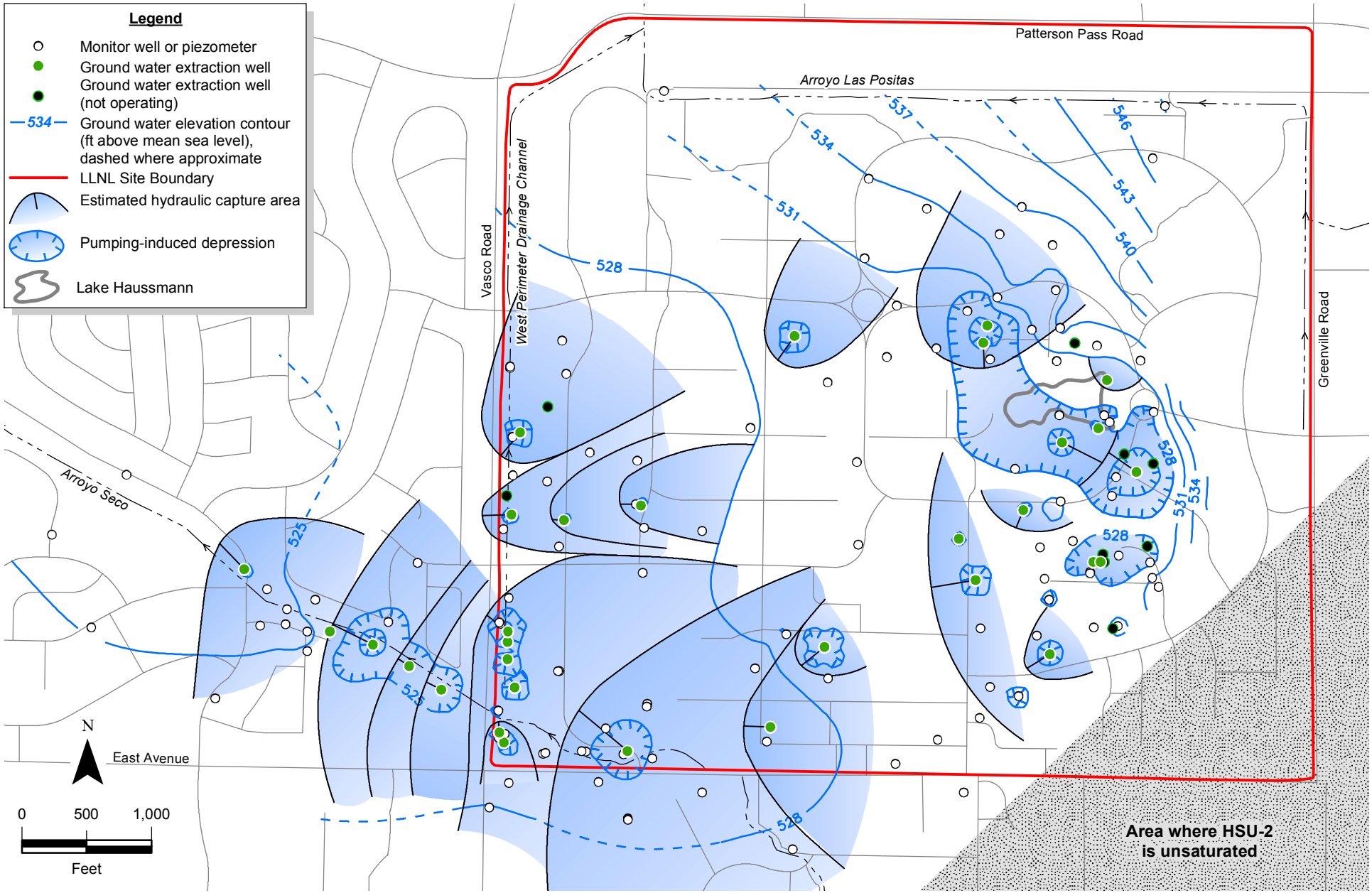


**Figure 3. Ground water elevation contour map based on 152 wells completed within HSU-2 showing estimated hydraulic capture areas, LLNL and vicinity, first quarter 2014.**

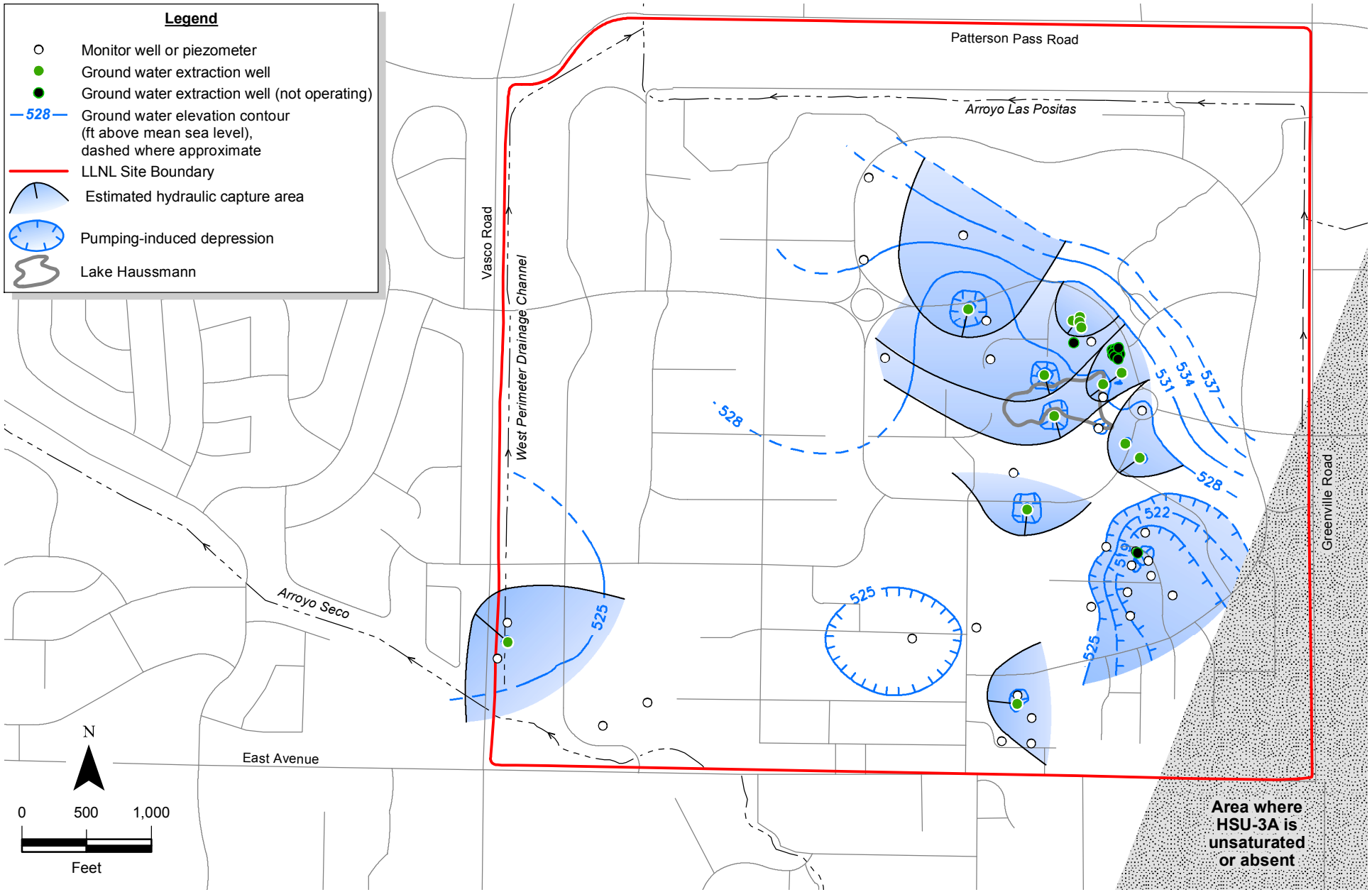


**Figure 4. Ground water elevation contour map based on 58 wells completed within HSU-3A showing estimated hydraulic capture areas, LLNL and vicinity, first quarter 2014.**

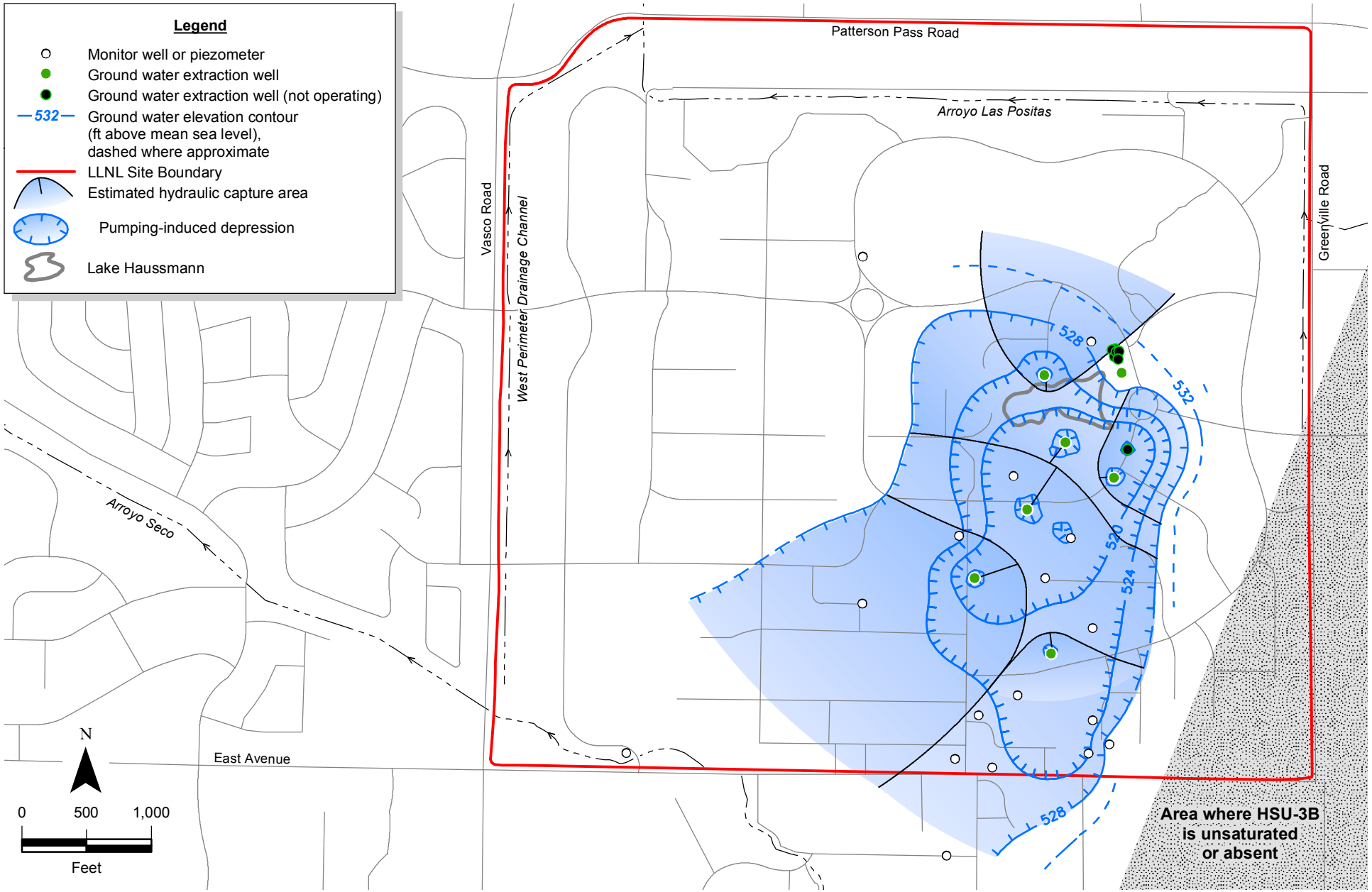


**Figure 5. Ground water elevation contour map based on 32 wells completed within HSU-3B showing estimated hydraulic capture areas, LLNL and vicinity, first quarter 2014.**

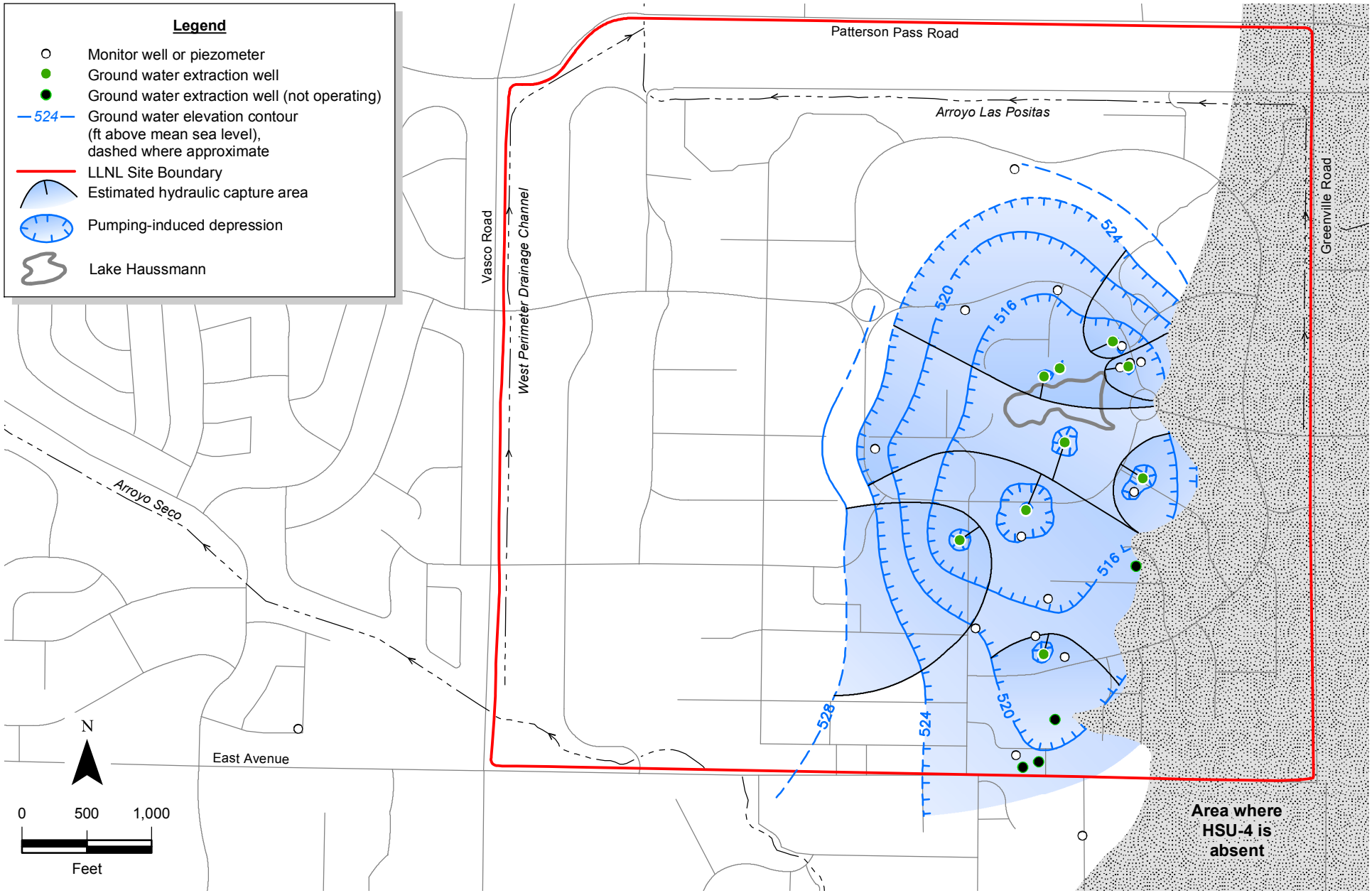


**Figure 6. Ground water elevation contour map based on 30 wells completed within HSU-4 showing estimated hydraulic capture areas, LLNL and vicinity, first quarter 2014.**

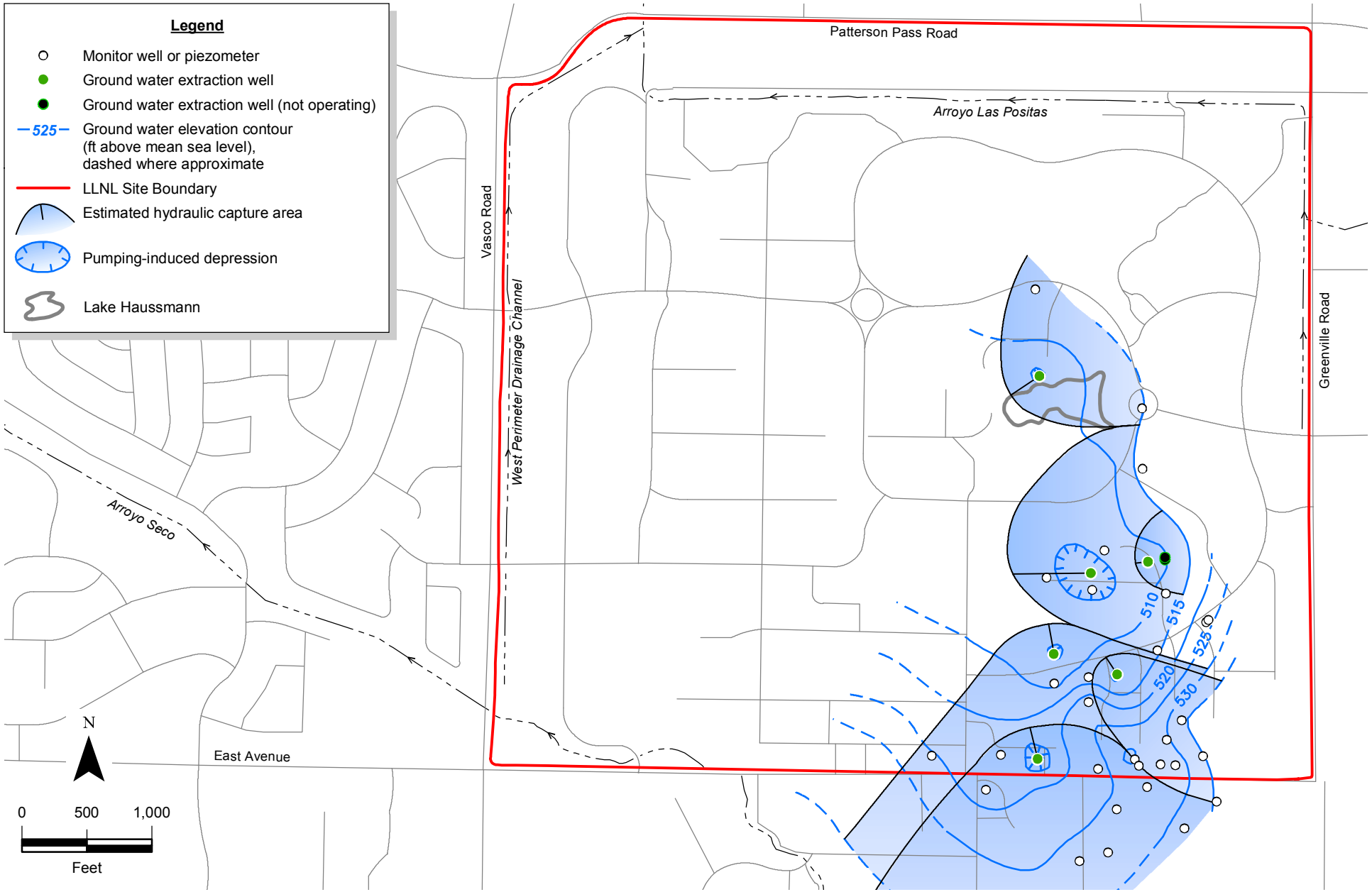


**Figure 7. Ground water elevation contour map based on 39 wells completed within HSU-5 showing estimated hydraulic capture areas, LLNL and vicinity, first quarter 2014.**